0001437749-24-02639210-Q DYADIC INTERNATIONAL INC 2024081320240813161554161554161554 0 0001437749-24-026392 10-Q 56 20240630 20240813 20240813 DYADIC INTERNATIONAL INC 0001213809 2836 450486747 DE 1231 10-Q 34 001-32513 241201693 1044 NORTH U.S. HIGHWAY ONE SUITE 201 JUPITER FL 33477 561-743-8333 1044 NORTH U.S. HIGHWAY ONE SUITE 201 JUPITER FL 33477 CCP WORLDWIDE INC 20030110 10-Q 1 dyai20240630_10q.htm FORM 10-Q dyai20240630_10q.htm 0001213809 DYADIC INTERNATIONAL INC false --12-31 Q2 2024 0.0001 0.0001 5,000,000 5,000,000 0 0 0 0 0.001 0.001 100,000,000 100,000,000 41,731,141 41,064,563 29,477,639 28,811,061 12,253,502 12,253,502 1 10 8 4 3 6 2 7 6 3 3 0 1,728,118 100 5,948,147 117,925 5,830,222 5,619,491 163,044 5,456,447 0 0 65,500 0 2.0 3 March 8, 2024 March 8, 2027 8 March 8, 2024 March 8, 2027 8 March 8, 2024 March 8, 2027 8 March 8, 2024 March 8, 2027 2,000,000 1,600,000 42,559 1,557,441 March 8, 2024 March 8, 2027 4,000,000 4,000,000 106,398 3,893,602 2,000 186,000 10 1 3 1 4 1 4 1 4 1 1 247,961 President and Chief Executive Officer Mark Emalfarb true June 4, 2024 director Jack Kaye true June 6, 2024 Vice President of Research and Business Development Ronen Tchelet true June 7, 2024 Chief Financial Officer Ping Wang Rawson true June 12, 2024 292,367 250,000 false false false The Company considers the declines in market value of its investment portfolio to be temporary in nature. As of June 30, 2024 and December 31, 2023, the Company did not consider any of its investments to be other-than-temporarily impaired and no allowance for credit losses was recorded. Represents the following options expired: (a) 300,000 stock options with an exercise price of $1.87 per share granted to an executive, (b) 25,000 stock options with an exercise price of $1.76 per share granted to a member of the Board of Directors, (c) 7,500 stock options with an exercise price of $5.56 per share granted to a consultant, (d) 25,000 stock options with an exercise price of $4.14 per share granted to a consultant, and (e) 1,000 stock options with an exercise price of $1.55 per share granted to an employee. For the three months ended June 30, 2024 and 2023, the Company received discounts of $31,357 and $17,601 to purchase held-to-maturity investment securities, respectively. For the six months ended June 30, 2024 and 2023, the Company received discounts of $61,472 and $32,834 to purchase held-to-maturity investment securities, respectively. For the year ended December 31, 2023, the Company received discounts of $39,012 to purchase held-to-maturity investment securities. Represents the cancellation of RSUs granted to a former member of the Board of Directors. All our money market funds were invested in U.S. Government money market funds. Represents 212,709 RSUs granted to executives and key personnel, 174,837 RSUs granted to the Board of Directors, and 50,000 RSUs granted to a contractor. On March 13, 2024, the Company granted 212,709 RSUs with immediate vesting, to executives and key personnel in lieu of cash bonuses earned for the year ended 2023. On January 2, 2024, the Company granted 141,510 RSUs, vesting upon one year anniversary of the grant, to the Board of Directors. The fair value of the common stock is the Company's closing stock price on the grant date as reported on the Nasdaq Stock Exchange. Represents the following options granted: Annual share-based compensation awards on January 2, 2024, with an exercise price of $1.59, including: (a) 387,500 stock options granted to executives and key personnel, vesting upon one year anniversary, or annually in equal installments over four years, (b) 352,500 stock options granted to members of the Board of Directors, vesting upon one year anniversary, (c) 17,600 stock options granted to employees, vesting annually in equal installments over four years, and (d)15,000 stock options granted to a consultant, vesting upon one year anniversary. One-time awards on April 11, 2024, with an exercise price of $1.84, including 20,000 stock options granted to an executive, vesting annually in equal installments over four years, and 20,000 stock options granted to a member of the Board of Directors, vesting upon one year anniversary. Represents the following options canceled: (a) 50,000 stock options granted to a former Board of Directors, (b) 13,125 stock options granted to the Company's former Chairman of the Board of Directors. 00012138092024-01-012024-06-30 xbrli:shares 00012138092024-08-12 thunderdome:item iso4217:USD 00012138092024-06-30 00012138092023-12-31 0001213809us-gaap:NonrelatedPartyMember2024-06-30 0001213809us-gaap:NonrelatedPartyMember2023-12-31 0001213809us-gaap:RelatedPartyMember2024-06-30 0001213809us-gaap:RelatedPartyMember2023-12-31 iso4217:USDxbrli:shares 0001213809dyai:ResearchAndDevelopmentMember2024-04-012024-06-30 0001213809dyai:ResearchAndDevelopmentMember2023-04-012023-06-30 0001213809dyai:ResearchAndDevelopmentMember2024-01-012024-06-30 0001213809dyai:ResearchAndDevelopmentMember2023-01-012023-06-30 0001213809us-gaap:LicenseMember2024-04-012024-06-30 0001213809us-gaap:LicenseMember2023-04-012023-06-30 0001213809us-gaap:LicenseMember2024-01-012024-06-30 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commercial quantities of industrial enzymes and other proteins, and has previously licensed this technology to third parties, such as Abengoa Bioenergy SA, BASF SE, Codexis, Inc. and others, for use in industrial (non-pharmaceutical) applications. This technology is based on the Thermothelomyces heterothallica (formerly known as Myceliophthora thermophila) fungus, which the Company named C1.Â Â Subsequent to the Company selling its industrial technology business to Danisco USA (â€œDaniscoâ€), the industrial biosciences business of DuPont (NYSE: DD) (the â€œDuPont Transactionâ€) on December 31, 2015, the Company has been focused on building the C1-cell protein production platform for the development and production of biologic products including enzymes and other proteins for human and animal health. Some examples of human and animal vaccines and drugs which have the potential to be produced from C1-cells are protein antigens, ferritin nanoparticles, virus-like particles (â€œVLPsâ€), monoclonal antibodies (â€œmAbsâ€), Bi/Tri-specific antibodies, Fab antibody fragments, Fcfusion proteins, as well as other therapeutic enzymes and proteins. The Company is involved in multiple funded research collaborations with animal and human pharmaceutical companies which are designed to leverage its C1-cell protein production platform to develop innovative vaccines and drugs, biosimilars and/or biobetters. Â The CompanyÂ also developedÂ the Dapibusâ„¢ thermophilic filamentous fungal based microbial protein production platform to enable the rapid development and large-scale manufacture of low-cost proteins, metabolites, and other biologic products for use in non-pharmaceutical applications, such as food, nutrition, and wellness. Â Liquidity and Capital ResourcesÂ Â The Company expects to incur losses and have negative net cash flows from operating activities as it continues developing its microbial platforms and related products, and as it expands its pipelines and engages in further research and development activities for internal products as well as for its third-party collaborators and licensees. The success of the Company depends on its ability to develop its technologies and products to the point of regulatory approval and subsequent revenue generation or through the sublicensing of the Companyâ€™s technologies and products, and its ability to raise capital to finance these developmental efforts. Â On March 8, 2024, the CompanyÂ issued an aggregate principal amount of $6.0 million of its 8.0% Senior Secured Convertible Promissory Notes due March 8, 2027 (the â€œConvertible Notesâ€) in a private placement in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended (the â€œSecurities Actâ€). The purchasers of the Convertible Notes include immediate family members and family trusts related to Mark Emalfarb, our President and Chief Executive Officer and a member of our Board of Directors, including The Francisco Trust, an existing holder of more than 5% of the Companyâ€™s outstanding common stock, (collectively, the â€œPurchasersâ€).Â The net proceeds from the sale of the Convertible Notes, after deducting offering expenses, is $5,824,000. The Company intends to use the net proceeds from the offering of the Convertible Notes for working capital and general corporate purposes. Â The Convertible Notes areÂ senior, secured obligations of Dyadic and its affiliates, and interest isÂ payable quarterly in cash on the principal amount equal to 8% per annum. The Convertible Notes will mature on March 8, 2027 (the â€œMaturity Dateâ€), unless earlier converted, repurchased, or redeemed in accordance with the terms of the Convertible Notes. Â The Convertible Notes can beÂ convertedÂ into shares of Dyadicâ€™s Class A common stock (the â€œCommon Stockâ€), at the option of the holders of the Convertible Notes (the â€œNoteholdersâ€) at any time prior to the Maturity Date. The conversion price is $1.79 per share of the Common Stock, which is equal to 125% of the trailing 30-day VWAP of the Common Stock ending on the trading day immediately preceding the date of the securities purchase agreement. As of June 30, 2024, $400,000 of the Convertible Notes were converted into 223.463Â shares of Common Stock.Â For more information regarding the Convertible Notes, including the covenants related thereto see Note 4Â to the Consolidated Financial Statements. Â This private placement funding will support our near-term revenue growth and accelerate our strategic objective of commercialization opportunities for pharmaceutical and non-pharmaceutical applications.Â Â The Company expects its existing cash and cash equivalents and cash raised from the Convertible Notes, investments in debt securities, and operating cash flows will be sufficient to meet its operational, business, and other liquidity requirements for at least the next twelve (12) months from the date of issuance of the financial statements contained in this Quarterly Report. However, the Company has based this estimate on assumptions that may prove to be wrong, and its operating plan may change as a result of many factors currently unknown to it. In the event our financing needs are not able to be met by our existing cash, cash equivalents and investments, we would seek to raise additional capital through strategic financial opportunities that could include, but are not limited to, future public or private equity offerings, collaboration agreements, and/or other means. Any amounts raised may be used for the further development and commercialization of product candidates, and for other working capital purposes. There is no guarantee that any of these strategic or financing opportunities will be executed or realized on favorable terms, if at all, and some could be dilutive to existing shareholders. Â Summary of Significant Accounting Policies Â Basis of Presentation Â The accompanying unaudited condensed consolidated financial statements, including the accounts of the Company and its wholly owned subsidiaries, have been prepared in accordance with U.S. generally accepted accounting principles (â€œGAAPâ€)Â as found in the Accounting Standards Codification (â€œASCâ€), Accounting Standards Update (â€œASUâ€) of the Financial Accounting Standards Board (â€œFASBâ€)Â and applicable rules and regulations of the Securities and Exchange Commission (â€œSECâ€) regarding interim financial reporting. Certain information and footnote disclosures normally included in consolidated financial statements have been condensed or omitted pursuant to such rules and regulations. All significant intra-entity transactions and balances have been eliminated in consolidation. The information included in this Quarterly Report should be read in conjunction with the audited consolidated financial statements and footnotes as of and for the year ended DecemberÂ 31, 2023,Â included in our Annual Report. Â 7 Â In the opinion of management, the accompanying unaudited interim consolidated financial statements reflect all adjustments, which are of a normal recurring nature, considered necessary for a fair presentation of all periods presented.Â The results of the Companyâ€™s operations for any interim periods are not necessarily indicative of the results of operations for any other interim period or for a full fiscal year. Â The Company conductsÂ business in one operating segment, which is identified by the Company based on how resources are allocated, and operating decisions are made. Management evaluates performance and allocates resources based on the Company as a whole. Â Use of Estimates Â The preparation of these consolidated financial statements in accordance with GAAP requires management to make estimates and judgments that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our consolidated financial statements and the reported amounts of revenues and expenses during the applicable period. Estimates inherent in the preparation of these consolidated financial statements include, but are not limited to, estimates related to revenue recognition, accrued expenses, stock-based compensation expense,Â and income taxes. The Company bases its estimates on historical experience and other market specific or other relevant assumptions it believes to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts, and experience. Actual results may differ from these estimates under different assumptions or conditions. Such differences could be material to the consolidated financial statements. Â Concentrations and Credit Risk Â The Companyâ€™s financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash and cash equivalents, investment securities, and accounts receivable. At times, the Company has cash, cash equivalents, and investment securities at financial institutions exceeding the Federal Depository Insurance Company (â€œFDICâ€) and the Securities Investor Protection Corporation (â€œSIPCâ€) insured limit on domestic currency and the Netherlandsâ€™ FDIC counterpart for foreign currency. The Company currentlyÂ deals with four reputable financial institutions and has not experienced any losses in those accounts.Â Â For the three months endedÂ June 30, 2024 and 2023, the Companyâ€™s revenue was generated fromÂ tenÂ andÂ eight customers, respectively.Â For the six months endedÂ June 30, 2024 and 2023, the Companyâ€™s revenue was generated from thirteenÂ and eight customers, respectively.Â Significant customers are those that account for greater than 10% of the Companyâ€™s revenues.Â For the three months endedÂ June 30, 2024 and 2023, fourÂ and three significant customers accounted for $285,000Â or 73.7%Â and $525,000Â or 66.2%Â of research and development revenue, respectively.Â For the six months endedÂ June 30, 2024 and 2023, five and three significant customers accounted for 506,000 or 70.3%Â and $1,152,000 or 66.7%Â of research and development revenue, respectively.Â Â As ofÂ June 30, 2024 andÂ December 31, 2023,Â accounts receivable was from sixÂ andÂ thirteen customers, of which,Â threeÂ and twoÂ customers accounted for $191,000 or 76.3%Â and $1,150,000 or 45.2% ofÂ total accounts receivable, respectively.Â The loss of business from one or a combination of the Companyâ€™s customers could adversely affect its operations. Â The Company conducts operations in the Netherlands through its foreign subsidiary and generates a portion of its revenues from customers that are located outside of the United States.Â For the three months endedÂ June 30, 2024 and 2023, the Company hadÂ fourÂ andÂ twoÂ customersÂ outside of the United States (i.e., European customers) that accounted for $106,000 or 27.5%Â andÂ $98,000Â or 12.4%Â of research and developmentÂ revenue, respectively.Â For the six months endedÂ June 30, 2024 and 2023, the Company had seven and twoÂ customersÂ outside of the United States (i.e., European customers) that accounted for $304,000 or 42.2%Â and $187,000Â or 10.8%Â of research and developmentÂ revenue, respectively.Â Â As ofÂ June 30, 2024Â and December 31, 2023, theÂ Company hadÂ threeÂ and sixÂ customers outside of the United States (i.e., European customers) that accounted for $108,000Â or 43.3%Â andÂ $213,000Â orÂ 45.6% ofÂ accounts receivable, respectively. Â The Company uses several contract research organizations (â€œCROsâ€) to conduct its research projects. For the three months endedÂ June 30, 2024 and 2023, twoÂ and three CROs accounted for $598,000Â orÂ 96.5%Â and $1,586,000Â orÂ 99.4% of total research services we purchased, respectively.Â For the six months endedÂ June 30, 2024 and 2023, twoÂ and threeÂ CROs accounted for $957,000Â or 90.2%Â and $2,662,000Â or 97.6%Â of total research services we purchased, respectively. As of June 30, 2024Â and December 31, 2023, two and threeÂ CROs accounted for $195,000Â orÂ 35.9%Â and $620,000 or 94.4% of accounts payable, respectively. The loss of one CRO or a combination of the Companyâ€™s CROs could adversely affect its operations. Â Cash and Cash Equivalents Â We treat highly liquid investments with original maturities of three months or less when purchased as cash equivalents, including money market funds, which are unrestricted forÂ withdrawal or use. Â Investment Securities Â The Companyâ€™s investment policy requires investment securities to be investment grade and held to maturity with the primary objective to maintain a high degree of liquidity while maximizing yield. The Company invests excess cash balances in short-term and long-term investment grade securities. Short-term investment securities mature within twelve (12) months or less, and long-term investment securities mature over twelve (12) months from the applicable reporting date. Management determines the appropriate classification of each investmentÂ at the time of purchase and reevaluates the classifications at each balance sheet date. Â The Company classifies itsÂ investments in debt securities as held-to-maturity. Held-to-maturity securities are those securities that the Company has the ability and intent to hold until maturity. Held-to-maturity securities are recorded at amortized cost, net of allowance for credit losses if applicable, and adjusted for the amortization or accretion of premiums or discounts. Premiums and discounts are amortized over the life of the related held-to-maturity security. When a debt security is purchased at a premium, both the face value of the debt and premium amount are reflected as investing outflow. Â When evaluating an investment for other-than-temporary impairment, the Company reviews factors such as the length of time and extent to which fair value has been below its cost basis, the financial condition of the issuer and any changes thereto, changes in market interest rates, and whether it is more likely than not the Company will be required to sell the investment before recovery of the investmentâ€™s cost basis. The Company measures expected credit losses on held to maturity debt securities on an individual security basis. The estimate of expected credit losses considers historical credit information from external sources. The impairment of the investment that is related to the credit loss, if any,Â is expensed in the period in which the event or change occurred.Â Â The Company classifies its investments in money market funds as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets.Â As ofÂ June 30, 2024Â and December 31, 2023, all of our money market funds were invested in U.S. Government money market funds, for which the risk of loss is minimal.Â Â 8 Â As ofÂ June 30, 2024, andÂ December 31, 2023, the Company did not have any investment securities classified as trading. Â Accounts Receivable Â Accounts receivable consist of billed receivables currently due from customers and unbilled receivables. Unbilled receivables represent the excess of contract revenue (or amounts reimbursable under contracts) over billings to date. Such amounts become billable in accordance with the contract terms, which usually consider the passage of time, achievement of certain milestones or completion of the project. Â Accounts receivable are stated net of an allowance for credit losses, if deemed necessary based on the Companyâ€™s evaluation of collectability and potential credit losses. Management assesses the collectability of its accounts receivable using the specific identification of account balancesÂ and considers the credit quality and financial condition of its significant customers, historical information regarding credit losses and the Companyâ€™s evaluation of current and expected future economic conditions and changes in our customer collection trends. If necessary, an allowance for credit losses is recorded against accounts receivable such that the carrying value of accounts receivable reflects the net amount expected to be collected. Accounts receivable balances are written off against the allowance for credit losses when the potential for collectability is considered remote. Substantially all of our accounts receivable were current and include unbilled amounts that will be billed and collected over the next twelve (12) months. Management determined thatÂ no allowance for credit losses was required as ofÂ June 30, 2024, andÂ December 31, 2023. Â Accounts receivable consist of the following: Â Â Â June 30, 2024 Â Â December 31, 2023 Â Â Â (Unaudited) Â Â (Audited) Â Billed receivable Â $188,084Â Â $410,617Â Unbilled receivable Â Â 61,722Â Â Â 55,542Â Â Â $249,806Â Â $466,159Â Â Accounts Payable Â Accounts payable consist of the following: Â Â Â June 30, 2024 Â Â December 31, 2023 Â Â Â (Unaudited) Â Â (Audited) Â Research and development expenses Â $204,354Â Â $575,436Â Legal expenses Â Â 158,228Â Â Â 1,957Â Other Â Â 69,939Â Â Â 79,052Â Â Â $432,521Â Â $656,445Â Â Accrued Expenses Â Accrued expenses consist of the following: Â Â Â June 30, 2024 Â Â December 31, 2023 Â Â Â (Unaudited) Â Â (Audited) Â Employee wages and benefits Â $330,181Â Â $561,720Â Research and development expenses Â Â 499,056Â Â Â 274,080Â Legal expenses Â Â 41,360Â Â Â 210,004Â Other Â Â â€”Â Â Â 11,360Â Â Â $870,597Â Â $1,057,164Â Â Deferred Financing Costs Â Deferred financing costs represent costs incurred in connection with the issuance of debt instruments and equity financings.Â Deferred financing costs related to the issuance of debt are amortized over the term of the financing instrument using the effective interest method and are presented in the consolidated balance sheets as an offset against the related debt.Â Offering costs from equity financings are netted against the gross proceeds received from the equity financings. See Note 4 for the amortization amount.Â Â Research and Development Costs Â Research and development (â€œR&Dâ€) costs are expensed as incurred. R&D costs are for the Companyâ€™s internally funded pharmaceutical programs and other governmental and commercial projects. Â Research and development costs consist of personnel-related costs, facilities, research-related overhead, services from independent contract research organizations, and other external costs. Research and development costs, including related party, for the three and six months ended June 30, 2024 and 2023 were as follows: Â Â Â Three Months Ended June 30, Â Â Six Months Ended June 30, Â Â Â 2024 Â Â 2023 Â Â 2024 Â Â 2023 Â Â Â (Unaudited) Â Â (Unaudited) Â Â (Unaudited) Â Â (Unaudited) Â Outside contracted services Â $395,188Â Â $748,139Â Â $783,434Â Â $1,391,186Â Personnel related costs Â Â 106,889Â Â Â 147,414Â Â Â 213,216Â Â Â 299,608Â Facilities, overhead and other Â Â 13,552Â Â Â 21,999Â Â Â 41,702Â Â Â 37,324Â Â Â $515,629Â Â $917,552Â Â $1,038,352Â Â $1,728,118Â Â 9 Â Â Foreign Currency Transaction Gain or Loss Â The Company and its foreign subsidiary use the U.S. dollar as its functional currency, and initially measure the foreign currency denominated assets and liabilities at the transaction date. Monetary assets and liabilities are then re-measured at exchange rates in effect at the end of each period, and property and non-monetary assets and liabilities are carriedÂ at historical rates. Â Fair Value Measurements Â The Company applies fair value accounting for certain financial instruments that are recognized or disclosed at fair value in the financial statements. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement: Â Â â€¢Level 1 â€“ Quoted prices in active markets for identical assets or liabilities. Â â€¢Level 2 â€“ Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Â â€¢Level 3 â€“ Inputs that are generally unobservable and typically reflect managementâ€™s estimate of assumptions that market participants would use in pricing the asset or liability. Â The Companyâ€™s financial instruments included cash and cash equivalents, investment in debt securities, accounts receivable, accounts payable and accrued expenses, accrued payroll and related liabilities, deferred research and development obligations,Â deposits, and the Company's 8% Senior Secured Convertible Promissory Notes (the â€œConvertible Notesâ€), due March 2027. The carrying amount of these financial instruments, except for investment in debt securities and Convertible Notes,Â approximates fair value due to the short-term maturities of these instruments. The Companyâ€™s short-term and long-term investments in debt securities are recorded at amortized cost, and their estimated fair value amounts are provided by the third-party broker service for disclosure purposes. See Note 4 for additional information related to the Convertible Notes. Â Income Taxes Â For theÂ six months ended June 30, 2024, there wasÂ no provision for income taxes or unrecognized tax benefits recorded. As ofÂ June 30, 2024 andÂ December 31, 2023, deferred tax assets were $17.8Â million and $16.4Â million, respectively. Due to the Companyâ€™s history of operating losses and the uncertainty regarding our ability to generate taxable income in the future, the Company has established a 100% valuation allowance against deferred tax assets as ofÂ June 30, 2024 andÂ December 31, 2023. Â Stock-Based Compensation Â We recognize all share-based payments to

employees, consultants, and our Board of Directors (the â€œBoardâ€), as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations based on the grant date fair values of such payments. Stock-based compensation expense recognized each period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur. Â For performance-based awards, the Company recognizes related stock-based compensation expenses based upon its determination of the potential likelihood of achievement of the specified performance conditions at each reporting date. Â Net Loss Per Share Â Basic net loss per share is computed by dividing net loss available to common shareholders by the weighted average number of common stock shares outstanding during the reporting period. Diluted net loss per share adjusts the weighted average number of common stock shares outstanding for the potential dilution that could occur if common stock equivalents, such as stock options were exercised and converted into common stock, calculated by applying the treasury stock method. Â For the three and six months endedÂ June 30, 2024, a total of 5,948,147Â shares of potentially dilutive securities, including 117,925Â shares of unvested restrict stock unitsÂ andÂ options to purchase 5,830,222Â shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive.Â For the three and six months ended June 30, 2023, a total of 5,619,491Â shares of potentially dilutive securities, including 163,044 shares of unvested restrict stock units and options to purchase 5,456,447 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive Â Recent Accounting PronouncementsÂ Not Adopted as of June 30, 2024 Â In December 2023, the FASB issued Accounting Standards Update 2023-09 â€“ Income Taxes (Topic ASC 740) Income Taxes. The ASU improves the transparency of income tax disclosures by requiring (1) consistent categories and greater disaggregation of information in the rate reconciliation and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. The amendments in ASU 2023-09 will become effective for annual periods beginning January 1, 2025. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. We do not expect that this guidance will have a material impact on our financial position and results of operations. Â In November 2023, the FASB issued Accounting Standards Update 2023-07 â€“ Segment Reporting (Topic ASC 280) Improvements to Reportable Segment Disclosures. The ASU improves reportable segment disclosure requirements, primarily through enhanced disclosure about significant segment expenses. The enhancements under this update require disclosure of significant segment expenses that are regularly provided to the Chief Operating Decision Maker (â€œCODMâ€) and included within each reported measure of segment profit or loss, require disclosure of other segment items by reportable segment and a description of the composition of other segment items, require annual disclosures under ASC 280 to be provided in interim periods, clarify use of more than one measure of segment profit or loss by the CODM, require that the title of the CODM be disclosed with an explanation of how the CODM uses the reported measures of segment profit or loss to make decisions, and require that entities with a single reportable segment provide all disclosures required by this update and required under ASC 280. ASU 2023-07 is effective for public business entities for fiscal years beginning January 1,Â 2024, and interim periodsÂ beginning January 1, 2025, with early adoption permitted. We do not expect that this guidance will have a material impact on our financial position and results of operations. Â 10 Â Â Â Note 2:Â Â Â Â Â Cash, Cash Equivalents, and Investments Â The Companyâ€™s investments in debt securities are classified as held-to-maturity and are recorded at amortized cost, net of allowance for credit losses, and its investments in money market funds are classified as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets. The following table shows the Companyâ€™s cash, available-for-sale securities, and investment securities by major security type as ofÂ June 30, 2024, andÂ December 31, 2023: Â Â Â June 30, 2024 (Unaudited) Â Â Â Â Â Â Â Â Â Â Â Â Allowance Â Â Gross Â Â Gross Â Â Â Â Â Â Â Level Â Â Â Â Â Â for Â Â Unrealized Â Â Unrealized Â Â Â Â Â Â Â (1) Â Â Fair Value Â Â Credit Losses Â Â Holding Gains Â Â Holding Losses Â Â Adjusted Cost Â Cash and Cash Equivalents Â Â Â Â Â Â Â Â Â Â Â

claims, employment and other matters, which management considers immaterial, individually and in the aggregate. The Company makes a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The requirement for these provisions is reviewed at least quarterly and adjusted to reflect the impact of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular case. Litigation is inherently unpredictable and costly. Protracted litigation and/or an unfavorable resolution of one or more of proceedings, claims or investigations against the Company could have a material adverse effect on the Companyâ€™s consolidated financial position, cash flows or results of operations. Â VTT Research Contract Extension Â On January 31, 2024, the Company entered into a Third Amendment to the commission contract concerning VTT Technical Research Centre of Finland Ltd. (â€œVTTâ€) to develop Dyadicâ€™s C1 fungal expression system for therapeutic protein production. The original contract was entered on June 28, 2019, and subsequently amended by the First Amendment on June 21, 2022, and the Second Amendment on September 9, 2022. Under the terms of the Third Amendment, the contract duration wasÂ extended to January 31, 2025, and Dyadic will pay VTT a total of EUR â,¬186,000 to continue developing Dyadicâ€™s C1-cell protein production platform for therapeutic protein production, including our C1 host system. Dyadic has the right to terminate the contract with 90 daysâ€™ notice. Â Â Note 6:Â Â Â Â Share-Based Compensation Â Description of Equity Plans Â The 2021 Equity Incentive Award Plan (the â€œ2021 Planâ€) was adopted by the Company's Board of Directors on April 9, 2021Â and approvedÂ by the Companyâ€™sÂ Annual Meeting of Shareholders (the â€œAnnual Meetingâ€) on June 11, 2021. The 2021 Plan serves as a successor to the Companyâ€™s 2011 Equity Incentive Plan (the â€œ2011 Planâ€).Â Since the adoption of the 2021 Plan, all equity awards were made from the 2021 Plan and no additional awards will be granted under the 2011 Plan. The 2021 Plan providesÂ for the issuance of a variety of share-based compensation awards, includingÂ stock options,Â restricted stock awards, restricted stock unit awards, performance awards, dividend equivalents awards, deferred stock awards, stock payment awards and stock appreciation rights. As of April 16, 2021, the 2021 Plan increased the number of shares available for grant byÂ 3,000,000Â in addition toÂ the number of shares remaining available for the grant of new awards under the 2011. Â As ofÂ June 30, 2024, the Company hadÂ 5,830,222Â stock options outstanding and 117,925Â unvested restricted stock units inÂ addition toÂ 2,040,004Â shares of common stock available for grant under the 2021 Plan. As ofÂ December 31, 2023, there were 5,469,247 stock options outstanding and 243,044 unvested restricted stock unitsÂ in addition to 2,773,406Â shares of common stock available for grant under the 2021 Plan. Â Stock OptionsÂ Â Options are granted to purchase common stock at prices that are equal to the fair value of the common stock on the date the option is granted. Vesting is determined by the Board of Directors at the time of grant. The term of any stock option awards under the Companyâ€™s 2011 Plan and 2021 Plan is ten years, except for certain options granted to the contractors which are either one or three years.Â Â The grant-date fair value of each option grant is estimated using the Black-Scholes option pricing model and amortized on a straight-line basis over the requisite service period, which is generally the vesting period, for each separately vesting portion of the award as if the award was, in substance, multiple awards. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs, including the following.Â Â Risk-free interest rate. The risk-free interest rate is based on U.S. Treasury rates with securities approximating the expected lives of options at the date of grant. Â Expected dividend yield. The expected dividend yield is zero, as the Company has never paid dividends to common shareholders and does not currently anticipate paying any in the foreseeable future. Â Expected stock price volatility. The expected stock price volatility was calculated based on the Companyâ€™s own volatility since the DuPont Transaction in 2015. The Company reviews its volatility assumption on an annual basis and has used the Companyâ€™s historical volatilities since 2016, as the DuPont Transaction resulted in significant changes in the Companyâ€™s business and capital structure.Â Â 14 Â Â Expected life of option. The expected life of option was based on the contractual term of the option and expected employee exercise and post-vesting employment termination behavior. The Company uses the weighted average vesting period and contractual term of the option as the best estimate of the expected life of a new option, except for the options granted to the CEO (i.e., 5 or 10 years) and certain contractors (i.e., 1Â or 3 years).Â Â The assumptions used in the Black-Scholes option pricing model for stock options granted for theÂ six months ended June 30, 2024 are as follows: Â Risk-Free interest rate Â Â 3.93% - 4.61%Â Expected dividend yield Â Â â€”% Â Expected stock price volatility Â Â 63.31% Â Expected life of options (in years) Â Â 5.50-6.25Â Â The following table summarizes the stock option activities for theÂ six months ended June 30, 2024: Â Â Â Â

adjuvant from ViroVax. In the second quarter, the Company presented an overview of a H5N1 â€¯Bird Fluâ€™ recombinant protein human vaccine candidate to BARDA Tech Watch, NIH, and to the White House Office of Pandemic Preparedness and Response Policy. Â â— The Company successfully delivered a C1 produced H1N1 influenza antigen in a fully funded research collaboration with the Vaccine and Immunotherapy Center at Massachusetts General Hospital. The program is focused on expressing vaccine antigens for influenza A and other infectious diseases, as part of a US $5.88 million award granted to Massachusetts General Hospital from the Department of Defense. Â â— In third party funded programs, the C1 Platform has: Â o successfully expressed multiple infectious disease antigens including HPV, HIV, and multiple RSV antigensÍ¾ Â o delivered three mAbs for evaluation as neutralizing antibodies for infectious diseasesÍ¾Â andÂ Â o two additional mAbs in development, including a top ten pharmaceutical company. Â Critical Accounting Estimates Â The preparation of these consolidated financial statements in accordance with U.S. generally accepted accounting principles (â€œGAAPâ€) requires management to make estimates that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our consolidated financial statements and the reported amounts of revenues and expenses during the applicable period. Actual results may differ from these estimates under different assumptions or conditions. Such differences could be material to the consolidated financial statements. Â We define critical accounting estimates as those that are reflective of significant judgments and uncertainties and which may potentially result in materially different results under different assumptions and conditions. In applying these critical accounting estimates, our management uses its judgment to determine the appropriate assumptions to be used in making certain estimates. These estimates are subject to an inherent degree of uncertainty. Our critical accounting estimates include the following: Â Revenue Recognition Â The Company has no products approved for sale. All our revenue to date has been research revenue from third-party collaborations and government grants, as well as revenue from sublicensingÂ agreements and collaborative arrangements, which may include upfront payments,Â options to obtain a license, payment for research and development services,Â milestone payments and royalties, in the form of cash or non-cash considerations (e.g., minority equity interest). Â Revenue related to research collaborations and agreements:Â The Company typicallyÂ performs research and development services as specified in each respective agreement on a best-efforts basis, and recognizes revenue from research funding under collaboration agreements in accordance with the 5-step process outlined in ASC Topic 606 (â€œTopic 606â€): (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. We recognize revenue when we satisfy a performance obligation by transferring control of the service to a customer in an amount that reflects the consideration that we expect to receive. Depending on how the performance obligation under our license and collaboration agreements is satisfied, we recognize the revenue either at a point in time or over time by using the input method under Topic 606 to measure the progress toward complete satisfaction of a performance obligation.Â Â Under the input method, revenue will be recognized based on the entityâ€™s efforts or inputs to the satisfaction of a performance obligation (e.g., resources consumed, labor hours expended, costs incurred, or time elapsed) relative to the total expected inputs to the satisfaction of that performance obligation. The Company believes that the cost-based input method is the best measure of progress to reflect how the Company transfers its performance obligation to a customer. In applying the cost-based input method of revenue recognition, the Company uses actual costs incurred relative to budgeted costs to fulfill the performance obligation. These costs consist primarily of full-time equivalent effort and third-party contract costs. Revenue will be recognized based on actual costs incurred as a percentage of total budgeted costs as the Company completes its performance obligations.Â Â 18 Â Â A cost-based input method of revenue recognition requires management to make estimates of costs to complete the Companyâ€™s performance obligations. In making such estimates, significant judgment is required to evaluate assumptions related to cost estimates. The cumulative effect of revisions to estimated costs to complete the Companyâ€™s performance obligations will be recorded in the period in which changes are identified and amounts can be reasonably estimated. A significant change in these assumptions and estimates could have a material impact on the timing and amount of revenue recognized in future periods.Â Â Revenue related to grants: The Company may receive grantsÂ from governments, agencies, and other private and not-for-profit organizations. These grants are intended to be used to fund the Companyâ€™s research collaborations partially or fully, including opportunities arising in connection with COVID-19 that the Company is pursuing with certain collaborators. However, most, if not all, of such potential grant revenues, if received, is expected to be earmarked for third parties to advance the research required, including preclinical and clinical trials for SARS-CoV-2 vaccines and/or antibodies candidates.Â Â Revenue related to sublicensing agreements: If the sublicense to the Companyâ€™s intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenue allocated to the license when technology is transferred to the customer and the customer can use and benefit from the license. Â Customer options: If the sublicensing agreement includes customer options to purchase additional goods or services, the Company will evaluateÂ if suchÂ options are considered material rights to be deemed as separate performance obligations at the inception of each arrangement.Â Â Milestone payments: At the inception of each arrangement that includes development, commercialization, and regulatory milestone payments, the Company evaluates whether the achievement of the milestones is considered probable and estimates the amount to be included in the transaction price. If the milestone payment is in exchange for a sublicense and is based on the sublicenseeâ€™s subsequent sale of product, the Company recognizes milestone payment by applying the accounting guidance for royalties. To date, the Company has not recognized any milestone payment revenue resulting from any of its sublicensing arrangements.Â Â Royalties: With respect to licenses deemed to be the predominant item to which the sales-based royalties relate, including milestone payments based on the level of sales, the Company recognizes revenue at the later of (i) when the related sales occur or (ii) when the performance obligation to which some or allÂ the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue resulting from any of its sublicensing arrangements.Â Â We invoice customers based on our contractual arrangements with each customer, which may not be consistent with the period that revenues are recognized. When there is a timing difference between when we invoice customers and when revenues are recognized, we record either a contract asset (unbilled accounts receivable) or a contract liability (deferred research and development obligations), as appropriate. If upfront fees or considerations related to sublicensing agreement are received prior to the technology transfer, the Company will record the amount received as deferred revenue from licensing agreement.Â Â We are not required to disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed.Â Â The Company adopted a practical expedient to expense sales commissions when incurred because the amortization period would be one year or less. Â Accrued Research and Development Expenses Â In order to properly record services that have been rendered but not yet billed to the Company, we review open contracts and purchase orders, communicate with our personnel and we estimate the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly or quarterly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date in our consolidated financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and adjust if necessary. Examples of accrued research and development expenses include amounts owed to contract research organizations, to service providers in connection with research and development activities. Â Stock-Based CompensationÂ Â We have granted stock options to employees, directors, and consultants. The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model. The Black-Scholes model considers volatility in the price of our stock, the risk-free interest rate, the estimated life of the option, the closing market price of our stock and the exercise price. For purposes of the calculation, we assumed that no dividends would be paid during the life of the options.Â We also used the weighted-average vesting period and contractual term of the option as the best estimate of the expected life of a new option, except for the options granted to the CEO (i.e., 5 or 10 years) and certain contractors (i.e., 1Â or 3 years).Â The expected stock price volatility was calculated based on the Companyâ€™s own volatility since the DuPont Transaction. The Company reviews its volatility assumption on an annual basis and has used the Companyâ€™s historical volatilities since 2016, as the DuPont Transaction resulted in significant changes in the Companyâ€™s business and capital structure. Â The estimates utilized in the Black-Scholes calculation involve inherent uncertainties and the application of management judgment. These estimates are neither predictive nor indicative of the future performance of our stock. As a result, if other assumptions had been used, our recorded share-based compensation expense could have been materially different from that reported. In addition, because some of the performance-based options issued to employees, consultants, and other third-parties vest upon the achievement of certain milestones, the total ultimate expense of share-based compensation is uncertain. Â 19 Â Â Accounting for Income Taxes Â The Company accounts for income taxes under the asset and liability method in accordance with ASC Topic 740, â€œIncome Taxesâ€. Under this method, income tax expense /(benefit) is recognized for: (i) taxes payable or refundable for the current year and (ii) deferred tax consequences of temporary differences resulting from matters that have been recognized in an entityâ€™s financial statements or tax returns. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is provided to reduce the deferred tax assets reported if based on the weight of the available positive and negative evidence, it is more likely than not some portion or all the deferred tax assets will not be realized.Â Â In determining taxable income for the Companyâ€™s consolidated financial statements, we are required to estimate income taxes in each of the jurisdictions in which we operate. This process requires the Company to make certain estimates of our actual current tax exposure and assessment of temporary differences between the tax and financial statement recognition of revenue and expense. In evaluating the Companyâ€™s ability to recover its deferred tax assets, the Company must consider all available positive and negative evidence including its past operating results, the existence of cumulative losses in the most recent years and its forecast of future taxable income. Significant management judgment is required in determining our provision for income taxes, deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. Â The Company is required to evaluate the provisions of ASC 740 related to the accounting for uncertainty in income taxes recognized in a companyâ€™s financial statements. ASC 740 prescribes a comprehensive model for how a company should recognize, present, and disclose uncertain positions that the company has taken or expects to take in its tax return. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. Differences between tax positions taken or expected to be taken in a tax return and the net benefit recognized and measured pursuant to the interpretation are referred to as â€œunrecognized benefits.â€ A liability should be recognized (or amount of net operating loss carry forward or amount of tax refundable is reduced) for unrecognized tax benefits, because it represents a companyâ€™s potential future obligation to the taxing authority for a tax position that was not recognized because of applying the provision of ASC 740. Â The Company classifies accrued interest and penalties related to its tax positions as a component of income tax expense. The Company currently is not subject to U.S. federal, state, and local tax examinations by tax authorities for the years before 2017. Â Off-Balance Sheet Arrangements Â We do not have any off-balance sheet arrangements. Â Recent Accounting Pronouncements Â See Note 1 to the Consolidated Financial Statements for information about recent accounting pronouncements. Â Results of Operations Â Three and Six Months Ended June 30, 2024 Compared to the Same Periods inÂ 2023 Â Revenue and Cost of Research and Development Revenue Â The following table summarizes the Companyâ€™s revenue andÂ cost of research and development revenue for the three and six months ended June 30, 2024 and 2023: Â Â Â Three Months Ended June 30, Â Â Six Months Ended June 30, Â Â Â 2024 Â Â 2023 Â Â 2024 Â Â 2023 Â Research and development revenue Â $ 385,896 Â Â $ 793,042 Â Â $ 720,513 Â Â $ 1,726,976 Â License revenue Â Â â€” Â Â Â 44,117 Â Â Â â€” Â Â Â 88,235 Â Cost of research and development revenue Â Â 301,956 Â Â Â 792,944 Â Â Â 445,911 Â Â Â 1,519,862 Â Â For the three and six months ended June 30, 2024,Â the decrease in research and development revenue and cost of research and development revenue was due to the winding down of several large research collaborations conducted in 2023. For the three months ended June 30, 2024, the Companyâ€™s revenue was generated from ten collaborations compared to eightÂ collaborations for the same period a year ago. For theÂ six months ended June 30, 2024,Â the decrease in research and development revenue and cost of research and development revenue was due to the winding down of several large research collaborations conducted in 2023. For the six months ended June 30, 2024, the Companyâ€™s revenue was generated from thirteenÂ collaborations compared to eight collaborations for the same period a year ago.Â Â The license revenue for the three and six months ended June 30, 2023, was related to the Janssen license agreement, which was completed in December 2023. Â Research and Development Expenses Â Research and development costs are expensed as incurred and include salary and benefits of research personnel, third-party contract research organization services and supply costs. Â Research and development expenses for theÂ three months endedÂ June 30, 2024, decreased to $516,000 compared to $918,000Â for the same period a year ago. The decrease reflected the winding down of activities related to the Companyâ€™s Phase 1 clinical trial of DYAI-100 COVID-19 vaccine candidate as patient dosing was completed in February 2023 and a decrease in the amount of ongoing internal research projects. Â Research and development expenses for the six months ended June 30, 2024, decreased to $1,038,000Â compared to $1,728,000Â for the same period a year ago. The decrease reflected the winding down of activities related to the Companyâ€™s Phase 1 clinical trial of DYAI-100 COVID-19 vaccine candidate as patient dosing was completed in February 2023 and a decrease in the amount of ongoing internal research projects. Â 20 Â Â General and Administrative Expenses Â General and administrative expenses for theÂ three months endedÂ June 30, 2024, increased byÂ 14.6%Â to $1,608,000Â compared to $1,403,000Â for the same period a year ago.Â The increase reflected increasesÂ in share-based compensation expenses of $84,000, legal expenses of $81,000, business development and investor relations expenses of $60,000, and other increasesÂ of $22,000, offset by decreases in management incentivesÂ ofÂ $36,000,Â and insurance expenses of $6,000. Â General and administrative expenses for the six months ended June 30, 2024, increased byÂ 17.8%Â to $3,396,000Â compared to $2,883,000Â for the same period a year ago.Â The increase reflected increasesÂ inÂ business development and investor relations expenses of $296,000, share-based compensation expenses of $87,000, legal expenses of $64,000, management incentivesÂ ofÂ $19,000,Â and other increasesÂ of $82,000, offset by decreaseÂ in insurance expenses of $35,000. Â Loss from Operations Â Loss from operationsÂ for the three months ended June 30, 2024 , decreased to $2,043,000 , compared to $ 2,290,000 Â for the same period a year ago. The decrease in loss from operations was due to a decrease in research and development expenses of $402,000, partially offset by an increaseÂ in general and administrative expenses of $205,000. Â Loss from operationsÂ for the six months ended June 30, 2024 , decreased to $ 4,168,000 , compared to $ 4,341,000 for the same period a year ago. The decrease in loss from operations was due to a decrease in research and development expenses of $690,000, partially offset by an increaseÂ in general and administrative expenses of $514,000. Â Other Income (Expenses), Net Â For the three months ended June 30, 2024, total other income (expenses), net, was an expense of $3,000Â compared to an income of $137,000Â for the same period a year ago.Â The decrease in other income was due to interest expenses related to the Convertible Notes in 2024. Â For the six months ended June 30, 2024, total other income (expenses), net, was $113,000Â compared to $1,232,000Â for the same period a year ago.Â The decrease in other income was due to the gain on sale of the Companyâ€™s equity interest in Alphazyme, LLCÂ of $1,018,000 in 2023, and interest expenses related to the Convertible NotesÂ in 2024. Â Net Loss Â Net loss for the three months ended June 30, 2024, was $2,045,000Â compared toÂ $2,153,000 for the same period a year ago.Â The decrease in net loss was due to a decrease in research and development expenses of $402,000, partially offset by increases in general and administrative expenses of $205,000 and interest expenses of $141,000 in 2024. Â Net loss for the six months ended June 30, 2024, was $4,055,000Â compared to $3,109,000Â for the same period a year ago. The decrease in net loss was due to a decrease inÂ the gain on sale of the Companyâ€™s equity interest in Alphazyme LLC of $957,000 and research and development expenses of $690,000, partially offset by increases in general and administrative expenses of $514,000 andÂ interest expenses of $174,000. Â Liquidity and Capital ResourcesÂ Â The Company expects to incur losses and have negative net cash flows from operating activities as it continues developing its microbial platforms and related products, and as it expands its pipelines and engages in further research and development activities for internal products as well as for its third-party collaborators and licensees. The success of the Company depends on its ability to develop its technologies and products to the point of regulatory approval and subsequent revenue generation or through the sublicensing of the Companyâ€™s technologies and products, and its ability to raise capital to finance these developmental efforts. Â On March 8, 2024, the CompanyÂ issued an aggregate principal amount of $6.0 million of its 8.0% Senior Secured Convertible Promissory Notes due March 8, 2027 (the â€œConvertible Notesâ€) in a private placement in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended (the â€œSecurities Actâ€). The purchasers of the Convertible Notes include immediate family members and family trusts related to Mark Emalfarb, our President and Chief Executive Officer and a member of our Board of Directors, including The Francisco Trust, an existing holder of more than 5% of the Companyâ€™s outstanding common stock, (collectively, the â€œPurchasersâ€).Â The net proceeds from the sale of the Convertible Notes, after deducting offering expenses, is $5,824,000. The Company intends to use the net

proceeds from the offering of the Convertible Notes for working capital and general corporate purposes.Â This private placement funding is expected toÂ support our near-term revenue growth and accelerate our strategic objective of commercialization opportunities for pharmaceutical and non-pharmaceutical applications. Â The Convertible Notes areÂ senior, secured obligations of Dyadic and its affiliates, and interest isÂ payable quarterly in cash on the principal amount equal to 8% per annum. The Convertible Notes will mature on March 8, 2027 (the â€œMaturity Dateâ€), unless earlier converted, repurchased, or redeemed in accordance with the terms of the Convertible Notes. Â 21 Â Â The Convertible Notes can beÂ convertedÂ into shares of Dyadicâ€™s Class A common stock (the â€œCommon Stockâ€), at the option of the holders of the Convertible Notes (the â€œNoteholdersâ€) at any time prior to the Maturity Date. The conversion price is $1.79 per share of the Common Stock, which is equal to 125% of the trailing 30-day VWAP of the Common Stock ending on the trading day immediately preceding the date of the securities purchase agreement. As of June 30, 2024, $400,000 of the Convertible Notes were converted into 223.463Â shares of Common Stock.Â For more information regarding the Convertible Notes, see Note 4Â to the Consolidated Financial Statements. Â The Company expects its existing cash and cash equivalents and cash raised from the Convertible Notes, investments in debt securities, and operating cash flowsÂ from its existing and future license agreement(s)Â will be sufficient to meet its operational, business, and other liquidity requirements for at least the next twelve (12) months from the date of issuance of the financial statements contained in this Quarterly Report. However, the Company has based this estimate on assumptions that may prove to be wrong, and its operating plan may change as a result of many factors currently unknown to it. In the event our financing needs are not able to be met by our existing cash, cash equivalents and investments, we would seek to raise additional capital through strategic financial opportunities that could include, but are not limited to, future public or private equity offerings, collaboration agreements, and/or other means. Any amounts raised may be used for the further development and commercialization of product candidates, and for other working capital purposes. There is no guarantee that any of these strategic or financing opportunities will be executed or realized on favorable terms, if at all, and some could be dilutive to existing shareholders. Â As ofÂ June 30, 2024, cash and cash equivalents were $6.1Â million compared to $6.5Â million as ofÂ December 31, 2023. The carrying value of investment grade securities, including accrued interest as ofÂ June 30, 2024, was $4.0Â million compared to $0.8Â million as ofÂ December 31, 2023. Â Net cash used in operating activities for theÂ six months ended June 30, 2024Â wasÂ $3.1Â million, which was principally attributable to a net loss of $4.0 million, partially offset byÂ changes in operating assets and liabilities of $0.4Â million and share-based compensation expenses of $0.6Â million.Â Â Net cash used in operating activities for theÂ six months ended June 30, 2023, wasÂ $3.8Â million, which was principally attributable to a net loss of $3.1Â million,Â gain from the sale of investment in Alphazyme, LLC of approximately $1.0 million,Â and changes in operating assets and liabilities of $0.4 million,Â partially offset by share-based compensation expenses of approximately $0.7Â million.Â Â Net cash used inÂ investing activities for theÂ six months ended June 30, 2024Â was $3.1Â million,Â compared to a net cash provided by investing activities of $3.8 for the six months ended June 30, 2023. The increase in net cash used in investing activities was attributable to additional purchases of investment securities of $2.7 million, decreases in proceeds received from maturities of investment securities of $3.1 million, and proceeds from the sale of investment in Alphazyme of $1.3 million. Â Net cash provided byÂ financing activities for theÂ six months ended June 30, 2024Â was $5.8 million, which was related to net proceeds from issuance of convertible notes.Â For the six months ended June 30, 2023, there were no cash flows from financing activities.Â Â Â Item 3. Quantitative and Qualitative Disclosures about Market Risk Â We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item. Â Item 4. Controls and procedures Â Evaluation of Disclosure Controls and Procedures Â Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. The term â€œdisclosure controls and procedures,â€ as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this report, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective. Â Changes in Internal Controls Over Financial Reporting Â There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during theÂ three months ended June 30, 2024, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.Â Â Inherent Limitation on Effectiveness of Controls Â A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. Â 22 Â PART II Â Â Item 1. Legal Proceedings Â We are not currently involved in any litigation that we believe could have a materially adverse effect in our financial condition or results of operations. From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. See Note 5Â to the Consolidated Financial Statements for commitments and contingencies. Â Item 1A. Risk Factors Â There have been no changes to our risk factors from those disclosed in our Annual Report for theÂ 2023 fiscal year filed on March 28,Â 2024. Â Item 2. Unregistered Sales of Equity Securities and Use of Proceeds Â None. Â Item 3. Defaults Upon Senior Securities Â Not applicable. Â Item 4. Mine Safety Disclosures Â Not applicable. Â Item 5. Other Information Â (a)Â Â Â None. Â (b)Â Â None. Â (c)Â Â Â During the quarter ended June 30, 2024, the following individuals adopted Rule 10b5-1 trading arrangements, which are intended to satisfy the affirmative defense of Rule 10b5-1(c) under the Exchange Act: our President and Chief Executive Officer Mark Emalfarb (adopted on June 4, 2024)Ï¾ our director Jack Kaye (adopted on June 6, 2024)Ï¾ our Vice President of Research and Business Development Ronen Tchelet (adopted on June 7, 2024)Ï¾ and our Chief Financial Officer Ping Wang Rawson (adopted on June 12, 2024). Each trading arrangement includes the potential sale of up to a specified number of shares of our common stock owned by the applicable individualÂ (for Mr. Emalfarb, 1 millionÏ¾ for Mr. Kaye, 292,367Ï¾ for Mr. Tchelet, 250,000Ï¾ and for Ms. Rawson, 282,485), and expires on a specified date (for Mr. Emalfarb, December 31, 2026Ï¾ for Mr. Kaye, June 2, 2026Ï¾ for Mr. Tchelet, June 10, 2025Ï¾ and for Ms. Rawson, June 12, 2026), unless earlier terminated in accordance with the provisions of the arrangement. Â Except as described above, for the quarter ended June 30, 2024, none of our directors or officers (as defined in Section 16 of the Exchange Act) adopted or terminated a â€œRule 10b5-1 trading arrangementâ€ or a â€œnon-Rule 10b5-1 trading arrangementâ€ (each as defined in Item 408(a) and (c), respectively, of Regulation S-K). Â Item 6. Exhibits Â The following Exhibits are filed as part of this report pursuant to Item 601 of Regulation S-K: Â Â Â Â Â Â Â Incorporated by Reference Â Â Exhibit No. Â Description of Exhibit Form Â Original No. Â Date Filed Â Filed Herewith 3.1 Â Restated Certificate of Incorporation dated November 1, 2004 10-12G Â 3.1 Â January 14, 2019 Â Â 3.2 Â Third Amended and Restated Bylaws dated March 28, 2023 8-K Â 3.1 Â March 29, 2023 Â Â 10.1 Â License and Development Agreement between Dyadic International (USA), Inc. and Proliant Biologicals, LLC d/b/a Proliant Health and Biologicals, dated June 27, 2024(1) 8-K Â 10.1 Â July 2, 2024 Â Â 31.1 Â Certification of Principal Executive Officer of Dyadic Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 Â Â Â Â Â Â Â x 31.2 Â Certification of Principal Financial Officer of Dyadic Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 Â Â Â Â Â Â Â x 32.1 Â Certification of Principal Executive Officer of Dyadic Pursuant to18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002Â (2) Â Â Â Â Â Â Â Â 32.2 Â Certification of Principal Financial Officer of Dyadic Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002Â (2) Â Â Â Â Â Â Â Â 101.INS Â Inline XBRL Instance Document Â Â Â Â Â Â Â Â 101.SCH Â Inline XBRL Taxonomy Extension Schema Document Â Â Â Â Â Â Â Â 101.CAL Â Inline XBRL Taxonomy Extension Calculation Linkbase Document Â Â Â Â Â Â Â Â 101.DEF Â Inline XBRL Taxonomy Extension Definition Linkbase Document Â Â Â Â Â Â Â Â 101.LAB Â Inline XBRL Taxonomy Extension Labels Linkbase Document Â Â Â Â Â Â Â Â 101.PRE Â Inline XBRL Taxonomy Extension Presentation Linkbase Document Â Â Â Â Â Â Â Â 104 Â Cover Page Interactive Data File (embedded within the Inline XBRL and contained in Exhibit 101) Â Â Â Â Â Â Â Â Â Â (1) Portions of this exhibit have been omitted pursuant to Item 601(b)(10) of Regulation S-K.Â (2)Â Furnished herewith. 23 Â Â SIGNATURES Â Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersignedÂ thereunto duly authorized. Â Â Â DYADIC INTERNATIONAL, INC. Â Â Â August 13, 2024 By: /s/ Mark A. Emalfarb Â Â Mark A. Emalfarb Â Â President and Chief Executive Officer Â Â (Principal Executive Officer) Â Â Â Â Â Â Â August 13, 2024 By: /s/ Ping W. Rawson Â Â Ping W. Rawson Â Â Chief Financial Officer Â Â (Principal Financial Officer and Principal Accounting Officer) Â 24 EX-31.1 2 ex_678862.htm EXHIBIT 31.1 ex_678862.htm ExhibitÂ 31.1 Â Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 and Securities and Exchange Commission Release 34-46427 Â Â I, Mark A. Emalfarb, certify that: Â Â 1. I have reviewed this quarterly report on Form 10-Q of Dyadic International, Inc.; Â Â Â Â Â 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; Â Â Â Â Â 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report; Â Â Â Â Â 4. The registrantâ€™s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act RulesÂ 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act RulesÂ 13a-15(f) and 15d-15(f)) for the registrant and we have: Â Â Â Â Â a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; Â b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; Â c. evaluated the effectiveness of the registrantâ€™s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and Â d. disclosed in this report any change in the registrantâ€™s internal control over financial reporting that occurred during the registrantâ€™s most recent fiscal quarter (the registrantâ€™s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrantâ€™s internal control over financial reporting; and Â Â 5. The registrantâ€™s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrantâ€™s auditors and the audit committee of the registrantâ€™s board of directors (or persons performing the equivalent functions): Â Â Â a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrantâ€™s ability to record, process, summarize and report financial information; and Â b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrantâ€™s internal control over financial reporting. Â Date: August 13, 2024 By: /s/Â Â Â Â Mark A. Emalfarb Â Â Name: Mark A. Emalfarb Title: Chief Executive Officer Â Â EX-31.2 3 ex_678863.htm EXHIBIT 31.2 ex_678863.htm ExhibitÂ 31.2 Â Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 and Securities and Exchange Commission Release 34-46427 Â Â I, Ping W. Rawson, certify that: Â Â 1. I have reviewed this quarterly report on Form 10-Q of Dyadic International, Inc.; Â Â Â Â Â 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; Â Â Â Â Â 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report; Â Â Â Â Â 4. The registrantâ€™s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act RulesÂ 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act RulesÂ 13a-15(f) and 15d-15(f)) for the registrant and we have: Â Â Â Â Â a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; Â b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; Â c. evaluated the effectiveness of the registrantâ€™s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and Â d. disclosed in this report any change in the registrantâ€™s internal control over financial reporting that occurred during the registrantâ€™s most recent fiscal quarter (the registrantâ€™s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrantâ€™s internal control over financial reporting; and Â Â 5. The registrantâ€™s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrantâ€™s auditors and the audit committee of the registrantâ€™s board of directors (or persons performing the equivalent functions): Â Â Â a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrantâ€™s ability to record, process, summarize and report financial information; and Â b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrantâ€™s internal control over financial reporting. Â Date: August 13, 2024 By: /s/Â Â Â Â Ping W. Rawson Â Â Name: Ping W. Rawson Title: Chief Financial Officer Â Â EX-32.1 4 ex_678864.htm EXHIBIT 32.1 ex_678864.htm Exhibit 32.1 Â CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 Â In connection with the Quarterly Report of Dyadic International, Inc. (the â€œCompanyâ€) on Form 10-Q for the quarter ended June 30, 2024Â as filed with the Securities and Exchange Commission on the date hereof (the â€œReportâ€), I, Mark A. Emalfarb, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge: Â (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and Â (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. Â Date: August 13, 2024 By: /s/Â Â Â Â Mark A. Emalfarb Â Â Name:Â Mark A. Emalfarb Title: Chief Executive Officer Â Â EX-32.2 5 ex_678865.htm EXHIBIT 32.2 ex_678865.htm Exhibit 32.2 Â CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 Â In connection with the Quarterly Report of Dyadic International, Inc. (the â€œCompanyâ€) on Form 10-Q for the quarter ended June 30, 2024Â as filed with the Securities and Exchange Commission on the date hereof (the â€œReportâ€), I, Ping W. Rawson, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge: Â (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and Â (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. Â Date: August 13, 2024 By: /s/Â Â Â Â Ping W. Rawson Â Â Name: Ping W. Rawson Title: Chief Financial Officer Â Â EX-101.SCH 6 dyai-20240630.xsd XBRL TAXONOMY EXTENSION SCHEMA 000 - Document - Document And Entity Information link:calculationLink link:definitionLink link:presentationLink 001 - Statement - Consolidated Balance Sheets (Current Period Unaudited) link:calculationLink link:definitionLink link:presentationLink 002 - Statement - Consolidated Balance Sheets (Current Period Unaudited) (Parentheticals) link:calculationLink link:definitionLink link:presentationLink 003 - Statement - Consolidated Statements of Operations (Unaudited) link:calculationLink link:definitionLink link:presentationLink 004 - Statement - Consolidated Statements of Stockholders' Equity (Unaudited) link:calculationLink link:definitionLink link:presentationLink 005 - Statement - Consolidated Statements of Cash Flows (Unaudited)

link:calculationLink link:definitionLink link:presentationLink 006 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies link:calculationLink link:definitionLink link:presentationLink 007 - Disclosure - Note 2 - Cash, Cash Equivalents, and Investments link:calculationLink link:definitionLink link:presentationLink 008 - Disclosure - Note 3 - Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies link:calculationLink link:definitionLink link:presentationLink 009 - Disclosure - Note 4 - Convertible Notes Payable link:calculationLink link:definitionLink link:presentationLink 010 - Disclosure - Note 5 - Commitments and Contingencies link:calculationLink link:definitionLink link:presentationLink 011 - Disclosure - Note 6 - Share-based Compensation link:calculationLink link:definitionLink link:presentationLink 012 - Disclosure - Note 7 - Shareholders' Equity link:calculationLink link:definitionLink link:presentationLink 013 - Disclosure - Note 8 - Subsequent Events link:calculationLink link:definitionLink link:presentationLink 995460 - Disclosure - Significant Accounting Policies (Policies) link:calculationLink link:definitionLink link:presentationLink 995461 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies (Tables) link:calculationLink link:definitionLink link:presentationLink 995462 - Disclosure - Note 2 - Cash, Cash Equivalents, and Investments (Tables) link:calculationLink link:definitionLink link:presentationLink 995463 - Disclosure - Note 4 - Convertible Notes Payable (Tables) link:calculationLink link:definitionLink link:presentationLink 995464 - Disclosure - Note 6 - Share-based Compensation (Tables) link:calculationLink link:definitionLink link:presentationLink 995465 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies (Details Textual) link:calculationLink link:definitionLink link:presentationLink 995466 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies - Accounts Receivable (Details) link:calculationLink link:definitionLink link:presentationLink 995467 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies - Accounts Payable (Details) link:calculationLink link:definitionLink link:presentationLink 995468 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies - Accrued Expenses (Details) link:calculationLink link:definitionLink link:presentationLink 995469 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies - Research and Development Costs (Details) link:calculationLink link:definitionLink link:presentationLink 995470 - Disclosure - Note 2 - Cash, Cash Equivalents, and Investments (Details Textual) link:calculationLink link:definitionLink link:presentationLink 995471 - Disclosure - Note 2 - Cash, Cash Equivalents, and Investments - Major Security Type (Details) link:calculationLink link:definitionLink link:presentationLink 995472 - Disclosure - Note 3 - Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies (Details Textual) link:calculationLink link:definitionLink link:presentationLink 995473 - Disclosure - Note 4 - Convertible Notes Payable (Details Textual) link:calculationLink link:definitionLink link:presentationLink 995474 - Disclosure - Note 4 - Convertible Notes Payable - Convertible Debt (Details) link:calculationLink link:definitionLink link:presentationLink 995475 - Disclosure - Note 5 - Commitments and Contingencies (Details Textual) link:calculationLink link:definitionLink link:presentationLink 995476 - Disclosure - Note 6 - Share-based Compensation (Details Textual) link:calculationLink link:definitionLink link:presentationLink 995477 - Disclosure - Note 6 - Share-based Compensation - Black-Scholes Options Pricing Model (Details) link:calculationLink link:definitionLink link:presentationLink 995478 - Disclosure - Note 6 - Share-based Compensation - Stock Option Activity (Details) link:calculationLink link:definitionLink link:presentationLink 995479 - Disclosure - Note 6 - Share-based Compensation - Restricted Stock Units (Details) link:calculationLink link:definitionLink link:presentationLink 995480 - Disclosure - Note 6 - Share-based Compensation - Noncash Stock Option Compensation (Details) link:calculationLink link:definitionLink link:presentationLink 995481 - Disclosure - Note 7 - Shareholders' Equity (Details Textual) link:calculationLink link:definitionLink link:presentationLink EX-101.CAL 7 dyai-20240630_cal.xml XBRL TAXONOMY EXTENSION CALCULATION LINKBASE EX-101.DEF 8 dyai-20240630_def.xml XBRL TAXONOMY EXTENSION DEFINITION LINKBASE EX-101.LAB 9 dyai-20240630_lab.xml XBRL TAXONOMY EXTENSION LABEL LINKBASE Document And Entity Information Note To Financial Statement Details Textual Convertible notes, net of issuance costs us-gaap_ProceedsFromSaleMaturityAndCollectionsOfInvestments Proceeds from Sale, Maturity and Collection of Investments Significant Accounting Policies Note 1 - Organization and Summary of Significant Accounting Policies Note 2 - Cash, Cash Equivalents, and Investments Note 4 - Convertible Notes Payable Risk-Free interest rate, maximum Note 6 - Share-based Compensation Note 1 - Organization and Summary of Significant Accounting Policies - Accounts Receivable (Details) Note 1 - Organization and Summary of Significant Accounting Policies - Accounts Payable (Details) Non-current liabilities: Note 1 - Organization and Summary of Significant Accounting Policies - Accrued Expenses (Details) Note 1 - Organization and Summary of Significant Accounting Policies - Research and Development Costs (Details) Risk-Free interest rate, minimum Note 2 - Cash, Cash Equivalents, and Investments - Major Security Type (Details) Note 4 - Convertible Notes Payable - Convertible Debt (Details) Note 6 - Share-based Compensation - Black-Scholes Options Pricing Model (Details) Corporate Bonds, adjusted cost Expected stock price volatility Note 6 - Share-based Compensation - Stock Option Activity (Details) us-gaap_LiabilitiesCurrent Total current liabilities Note 6 - Share-based Compensation - Restricted Stock Units (Details) Note 6 - Share-based Compensation - Noncash Stock Option Compensation (Details) Notes To Financial Statements Convertible Debt [Table Text Block] Notes To Financial Statements [Abstract] Expected life of options (Year) Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Term (Year) Interest receivable Schedule of Share-Based Payment Award, Stock Options, Valuation Assumptions [Table Text Block] Share-Based Payment Arrangement, Option, Activity [Table Text Block] Share-Based Payment Arrangement, Activity [Table Text Block] Proceeds from maturities of investment securities Granted, Weighted-average Grant Date Fair Value (in dollars per share) Vested, Weighted-average Grant Date Fair Value (in dollars per share) Unvested shares forfeited (3) (in dollars per share) Share-Based Payment Arrangement, Restricted Stock and Restricted Stock Unit, Activity [Table Text Block] us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedWeightedAverageGrantDateFairValue Outstanding, Weighted-average Grant Date Fair Value (in dollars per share) Outstanding, Weighted-average Grant Date Fair Value (in dollars per share) us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedNumber Outstanding, Balance, RSU (in shares) Outstanding, Balance, RSU (in shares) Granted, RSU (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period (in shares) Corporate Debt Securities [Member] us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriod Vested, RSU (in shares) Proceeds from the sale of investment in Alphazyme Exercisable at June 30, 2024 (in dollars per share) Exercisable at June 30, 2024 (Year) Exercisable at June 30, 2024 Exercisable at June 30, 2024 (in shares) Outstanding at December 31, 2023 (Year) Outstanding at December 31, 2023 us-gaap_PaymentsToAcquireHeldToMaturitySecurities Purchases of held-to-maturity investment securities Financial Instruments [Domain] dyai_IncreaseDecreaseInAccruedInterest Accrued interest The total increase (decrease) in accrued interest during the period. us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingWeightedAverageExercisePrice Outstanding at December 31, 2023 (in dollars per share) Outstanding at June 30, 2024 (in dollars per share) Canceled (3) (in dollars per share) Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share) Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share) Deferred research and development obligations Financial Instrument [Axis] us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsOutstandingNumber Share-Based Compensation Arrangement by Share-Based Payment Award, Non-Option Equity Instruments, Outstanding, Number (in shares) Granted (1) (in dollars per share) Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Grants in Period, Weighted Average Exercise Price (in dollars per share) Exercised (in dollars per share) Accrued expenses Accrued Liabilities, Current Employee wages and benefits Descendant Trust [Member] Represents the descendant trust. Bradley Scott Emalfarb [Member] Represents Bradley Scott Emalfarb. Convertible Debt [Text Block] Disclosure representing convertible debt. us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsForfeitures Unvested shares forfeited (3) (in shares) Accounts payable Accounts Payable, Current Accounts Payable, Current Irrevocable Trust [Member] Represents Irrevocable Trust dyai_SharebasedCompensationArrangementsBySharebasedPaymentAwardOtherThanOptionsGrantsInPeriodWeightedAverageExercisePrice Share-based Compensation Arrangements by Share-based Payment Award, Other than Options, Grants in Period, Weighted Average Exercise Price (in dollars per share) Weighted average per share amount at which grantees can acquire shares of common stock by exercise of other than options. us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingNumber Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Number (in shares) Outstanding at December 31, 2023 (in shares) Outstanding at June 30, 2024 (in shares) Bradley Emalfarb [Member] Represents Bradley Emalfarb. Mr. Thomas Emalfarb [Member] Represents Mr. Thomas Emalfarb Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares) Expired (2) (in shares) The Francisco Trust [Member] Represents the Francisco Trust Other us-gaap_OtherAccruedLiabilitiesCurrent Cash, Cash Equivalents and Investments [Table Text Block] us-gaap_PolicyTextBlockAbstract Accounting Policies dyai_NonrefundableUpfrontPaymentReceived Non-refundable Upfront Payment, Received Represents non-refundable upfront payment, received. dyai_DeferredLicenseRevenue Deferred License Revenue Represents deferred license revenue. Third Party [Member] Represents the third party group. Research and Development [Member] Represents research and development. us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNumberOfSharesAvailableForGrant Share-Based Compensation Arrangement by Share-Based Payment Award, Number of Shares Available for Grant (in shares) Legal expenses us-gaap_AccruedProfessionalFeesCurrent Thomas Emalfarb, Scott Emalfarb and Michael Emalfarb [Member] Represents Thomas Emalfarb, Scott Emalfarb and Michael Emalfarb. Five Significant Customers [Member] Relating to five significant customers. Interest income The amount of interest income during the period, classified as nonoperating us-gaap_AccountsPayableOtherCurrent Other us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardExpirationPeriod Share-based Compensation Arrangement by Share-based Payment Award, Expiration Period (Year) Proliant Agreement [Member] Represents Proliant Agreement. us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardVestingPeriod1 Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year) us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardRequisiteServicePeriod1 Share-based Compensation Arrangement by Share-based Payment Award, Award Requisite Service Period (Year) Basic and diluted weighted-average common shares outstanding (in shares) Former Board of Directors [Member] Represents information related to former Board of Directors members. Current liabilities: Vesting [Axis] Vesting [Domain] Operating lease assets and liabilities us-gaap_IncreaseDecreaseInOperatingLeaseLiability Share-Based Payment Arrangement, Tranche One [Member] Share-Based Payment Arrangement, Tranche Two [Member] Supplemental cash flow information us-gaap_Assets Total assets Ronen Tchelet [Member] Represents information pertaining to Ronen Tchelet. Jack Kaye [Member] Represents information pertaining to Jack Kaye. Plan Name [Axis] Plan Name [Domain] Janssen Pharmaceutical Companies [Member] Represents Janssen Pharmaceutical Companies. dyai_InterestPayment Interest Payment Represents the interest payments for the period Former Chairman of the Board of Directors [Member] Represents information relating to the former Chairman of the Board of Directors. Mark Emalfarb [Member] Represents information pertaining to Mark Emalfarb. Cash, Cash Equivalents, and Marketable Securities [Text Block] Ping Wang Rawson [Member] Represents information pertaining to Ping Wang Rawson. Share-Based Payment Arrangement [Text Block] Award Type [Domain] Basis of Presentation and Significant Accounting Policies [Text Block] Award Type [Axis] Net loss Net loss Restricted Stock Units (RSUs) [Member] dyai_SecondPaymentUponCompletionTransfer Second Payment Upon Completion Transfer Represents the second payment upon the completion of a transfer in an agreement. dyai_InitialUpFrontPayment Initial Up Front Payment Represents the upfront payment for an agreement. dyai_FinalPaymentUponMeetingCertainProductivityThreshold Final Payment Upon Meeting Certain Productivity Threshold Represents the final payment upon meeting certain productivity thresholds in an agreement. Share-Based Payment Arrangement [Member] Share-Based Payment Arrangement, Option [Member] Conversion Of Convertible Notes Into Common Stock [Member] Represents the monetary value of convertible notes converted into common stock. Antidilutive Securities [Axis] Antidilutive Securities, Name [Domain] Board of Directors [Member] Represents a member of the board of directors. Executive And Board Of Directors [Member] Represents executives and board of directors members. Commitments and Contingencies Disclosure [Text Block] Two CROs [Member] Represents information regarding two contract research organizations. Cash flows from investing activities us-gaap_DeferredFinanceCostsGross Debt Issuance Costs, Gross us-gaap_IncreaseDecreaseInAccruedLiabilities Accrued expenses us-gaap_IncreaseDecreaseInAccountsPayable Accounts payable Legal expenses Represents the amount of legal expenses payable, current. Principal outstanding us-gaap_DebtInstrumentTerm Debt Instrument, Term (Year) General and administrative Cash, adjusted cost Cash and cash equivalents Cash and cash equivalents, adjusted cost us-gaap_InterestExpenseNonoperating Interest Expense, Nonoperating Interest expense us-gaap_HeldToMaturitySecuritiesAccumulatedUnrecognizedHoldingLoss Corporate Bonds, gross unrealized holding losses Corporate Bonds, gross unrealized holding gains us-gaap_DebtInstrumentConvertibleConversionPrice1 Debt Instrument, Convertible, Conversion Price (in dollars per share) Stock-based compensation Share based compensation expense - stock option us-gaap_DebtInstrumentConvertibleThresholdPercentageOfStockPriceTrigger Debt Instrument, Convertible, Threshold Percentage of Stock Price Trigger Employee [Member] Represents information regarding an employee. Money Market Funds, adjusted cost Amendment Flag Senior Secured 2024 Notes [Member] Represents the 2024 Senior Secured Convertible Promissory Notes. Issuance date City Area Code Due date Use of Estimates, Policy [Policy Text Block] New Accounting Pronouncements, Policy [Policy Text Block] Four Significant Customers [Member] Relating to four significant customers. Deferred research and development obligation June 30, 2023 (in shares) Balance (in shares) Balance (in shares) Common stock, outstanding (in shares) Preferred stock, shares outstanding (in shares) Current Fiscal Year End Date Interest rate Debt Instrument, Interest Rate, Stated Percentage us-gaap_IncreaseDecreaseInPrepaidDeferredExpenseAndOtherAssets Prepaid expenses and other current assets Document Fiscal Period Focus Document Fiscal Year Focus Document Period End Date Entity File Number Entity Emerging Growth Company Francisco Trust dated 2/28/1996 (1) Debt Instrument, Face Amount Document Type Entity Small Business Entity Shell Company Document Information [Line Items] Document Information [Table] dyai_DebtSecuritiesHeldtomaturitySecuritiesPurchasedDiscount Debt Securities, Held-to-maturity, Securities Purchased, Discount Represents securities that were purchased at a discount. Contract Research Organizations [Member] Represents information related to contract research organizations, or to research services purchased from such organizations. Entity Filer Category Debt Instrument [Axis] Entity Current Reporting Status Debt Instrument, Name [Domain] Liquidity and Capital Resources, Policy [Policy Text Block] Disclosure of accounting policy for liquidity and capital resources. us-gaap_IncreaseDecreaseInAccruedInterestReceivableNet Interest receivable dyai_ConcentrationRiskNumberOfCustomers Concentration Risk, Number of Customers Represents the number of major customers accounting for 10% or more of the specified concentration risk benchmark, which includes, but not limited to, sales revenue, accounts receivable, etc. us-gaap_InvestmentsAndCash Total, adjusted us-gaap_AccountsReceivableNet Accounts Receivable, after Allowance for Credit Loss Alphazyme [Member] Represents information related to Alphazyme. us-gaap_ConcentrationRiskPercentage1 Concentration Risk, Percentage us-gaap_IncreaseDecreaseInAccountsReceivable Accounts receivable Stock-based compensation expense Entity Tax Identification Number Entity Central Index Key Capitalized Contract Cost [Axis] Entity Registrant Name Capitalized Contract Cost [Domain] Entity [Domain] Customer Concentration Risk [Member] Legal Entity [Axis] Accounts Payable, Policy [Policy Text Block] Disclosure of accounting policy for accounts payable. Entity Address, Address Line One Accrued Expenses, Policy [Policy Text Block] Disclosure of accounting policy for accrued expenses. Supplier Concentration Risk [Member] ecd_NonRule10b51ArrTrmntdFlag Non-Rule 10b5-1 Arrangement Terminated [Flag] Entity Address, City or Town ecd_Rule10b51ArrTrmntdFlag Rule 10b5-1 Arrangement Terminated [Flag] ecd_Rule10b51ArrAdoptedFlag Rule 10b5-1 Arrangement Adopted [Flag] Entity Address, Postal Zip Code Entity Address, State or Province Concentration Risk Type [Axis] ecd_NonRule10b51ArrAdoptedFlag Non-Rule 10b5-1 Arrangement Adopted [Flag] Concentration Risk Type [Domain] us-gaap_AllowanceForDoubtfulAccountsReceivable Accounts Receivable, Allowance for Credit Loss us-gaap_TreasuryStockValue Treasury Stock, Value Treasury stock, shares held at cost - 12,253,502 Material Terms of Trading Arrangement [Text Block] ecd_TrdArrIndTitle Trading Arrangement, Individual Title dyai_ResearchAndDevelopmentInProcessCurrent Research and development expenses Represents current research and development in process. ecd_TrdArrIndName Trading Arrangement, Individual Name Research and development expenses dyai_AccruedResearchAndDevelopmentInProcessCurrent Represents current accrued research and development in process. ecd_TrdArrSecuritiesAggAvailAmt Trading Arrangement, Securities Aggregate Available Amount Entity Common Stock, Shares Outstanding ecd_TrdArrAdoptionDate Trading Arrangement Adoption Date Revenue Benchmark [Member] Accounts Receivable [Member] Facilities, overhead and other Represents facilities, overhead and other for research and development expense. Personnel related costs Represents personnel related costs for research and development expenses. Outside contracted services Represents outside contracted services for research and development expense. Trading Symbol Concentration Risk Benchmark

[Axis] Concentration Risk Benchmark [Domain] Issuance of common stock upon settlement of convertible debt Stock Issued During Period, Value, Conversion of Convertible Securities Issuance of common stock upon settlement of convertible debt (in shares) Stock Issued During Period, Shares, Conversion of Convertible Securities (in shares) Local Phone Number Issuance of common stock upon exercise of stock options (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercises in Period (in shares) Exercised (in shares) us-gaap_TableTextBlock Notes Tables Issuance of common stock upon vesting of restricted stock units (in shares) Stock Issued During Period, Shares, Restricted Stock Award, Net of Forfeitures (in shares) Issuance of common stock upon exercise of stock options Schedule of Research and Development Costs [Table Text Block] Tabular disclosure of research and development costs. Issuance of common stock upon vesting of restricted stock units Related and Nonrelated Parties [Axis] Related and Nonrelated Parties [Domain] Gain on sale of Alphazyme Gain from the sale of investment in Alphazyme Short-term Corporate Bonds [Member] Represents short-term corporate bonds. Granted (1) (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares) us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsForfeituresInPeriod Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Forfeitures in Period (in shares) Canceled (3) (in shares) us-gaap_StockGrantedDuringPeriodValueSharebasedCompensationForfeited Shares Granted, Value, Share-Based Payment Arrangement, Forfeited Total, fair value Represents fair value of cash, cash equivalents and investments. us-gaap_StockIssuedDuringPeriodSharesNewIssues Stock Issued During Period, Shares, New Issues (in shares) Corporate Bonds, fair value us-gaap_LiabilitiesAndStockholdersEquity Total liabilities and stockholdersâ€™ equity Research and development Accumulated deficit Money Market Funds [Member] Cash [Member] Changes in operating assets and liabilities: Amortization of debt issuance costs us-gaap_DisclosureTextBlockAbstract Notes to Financial Statements Subsequent Event [Member] us-gaap_ForeignCurrencyTransactionGainLossRealized Foreign currency exchange loss Operating lease liability, net of current portion Subsequent Event Type [Axis] Operating lease liability, current portion Subsequent Event Type [Domain] Subsequent Events [Text Block] Operating lease right-of-use asset, net Fair Value Measurement, Policy [Policy Text Block] Foreign Currency Transactions and Translations Policy [Policy Text Block] us-gaap_ShareBasedCompensation Stock-based compensation expense Other assets us-gaap_DebtConversionConvertedInstrumentSharesIssued1 Debt Conversion, Converted Instrument, Shares Issued (in shares) Bradley Emalfarb (2) (in shares) Earnings Per Share, Policy [Policy Text Block] Conversion of convertible notes Debt Conversion, Original Debt, Amount Debt Conversion Description [Axis] Debt Conversion, Name [Domain] Income Tax, Policy [Policy Text Block] Research and Development Expense, Policy [Policy Text Block] dyai_CollaborativeArrangementPaymentForAdditionalDevelopmentAndCommercialization Collaborative Arrangement, Payment for Additional Development and Commercialization Represents payments for additional development and commercialization for collaborative arrangement. us-gaap_AssetsCurrent Total current assets Non-current assets: Cash and cash equivalent, fair value Share-Based Payment Arrangement [Policy Text Block] Equity [Text Block] Three Significant Customers [Member] Relating to three significant customers. dyai_ConcentrationRiskSignificantCustomers Concentration Risk, Significant Customers Represents the number of significant customer, which represent over 10%. Vesting of restricted stock units Represents the cash flow effect of the vesting of restricted stock. Treasury stock (in shares) Treasury Stock, Common, Shares (in shares) Authorized shares - 100,000,000; issued shares - 41,731,141 and 41,064,563, outstanding shares - 29,477,639 and 28,811,061 as of June 30, 2024, and December 31, 2023, respectively Adjustments to reconcile net loss to net cash used in operating activities: Accrued interest Common stock, authorized (in shares) Common stock, issued (in shares) Success Fees [Member] Relating to Success fees. Common stock, par value (in dollars per share) us-gaap_CommonStockCapitalSharesReservedForFutureIssuance Common Stock, Capital Shares Reserved for Future Issuance (in shares) Statistical Measurement [Domain] Maximum [Member] The 2011 Plan [Member] Represents information regarding the 2011 plan. Minimum [Member] Contractor [Member] Represents information related to contractor. Ownership [Domain] VTT Technical Research Centre of Finland Ltd [Member] Represents VTT Technical Research Centre of Financial Ltd. Product and Service [Axis] Product and Service [Domain] Statistical Measurement [Axis] Investment, Name [Domain] Deferred Charges, Policy [Policy Text Block] Share-based Compensation Award Tranche Two through Five [Member] Represents shares-based compensation award tranche two through five. Ownership [Axis] Employees [Member] Represents information related to employees. Preferred stock, $.0001 par value: Authorized shares - 5,000,000; none issued and outstanding us-gaap_DeferredTaxAssetsLiabilitiesNet Deferred Tax Assets, Net Preferred stock, shares issued (in shares) Cash paid for interest Investment, Name [Axis] Executives and Key Personnel [Member] Represents executives and key personnel. Geographical [Axis] Geographical [Domain] Preferred stock, shares authorized (in shares) Consultant [Member] Represents information related to consultant. Preferred stock, par value (in dollars per share) us-gaap_ForeignCurrencyTransactionGainLossBeforeTax Foreign currency exchange loss (gain), net Fair Value Hierarchy and NAV [Domain] Customer [Axis] Customer [Domain] Fair Value, Inputs, Level 1 [Member] Fair Value, Inputs, Level 2 [Member] Fair Value Hierarchy and NAV [Axis] dyai_ResearchAndDevelopmentExpenseIncludingRelatedParty Research And Development Expense, Including Related Party Represents research and development expense including related party. Deferred license revenue Cash flows from operating activities Statement [Line Items] us-gaap_NumberOfOperatingSegments Number of Operating Segments Accounts receivable dyai_OwnershipPercentage Ownership Percentage Percentage of ownership. Additional paid-in capital Revenues: Short-term investment securities Stockholdersâ€™ equity: us-gaap_NonoperatingIncomeExpense Total other income (expense), net Chief Executive Officer [Member] Amortization of held-to-maturity securities, net Represents amortization (accretion) of premium on investment income. Current assets: us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations Cash and cash equivalents at beginning of period Cash and cash equivalents at end of period License [Member] Effect of exchange rate changes on cash us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect Net (decrease) increase in cash and cash equivalents us-gaap_NetCashProvidedByUsedInFinancingActivities Net cash provided by financing activities us-gaap_Liabilities Total liabilities Commitments and contingencies (Note 5) Director [Member] Executive Officer [Member] us-gaap_OperatingIncomeLoss Loss from operations us-gaap_NetCashProvidedByUsedInOperatingActivities Net cash used in operating activities us-gaap_NetCashProvidedByUsedInInvestingActivities Net cash (used in) provided by investing activities Prepaid expenses and other current assets Costs of research and development revenue Counterparty Name [Axis] Counterparty Name [Domain] Other income (expense): us-gaap_InterestPayableCurrentAndNoncurrent Interest Payable A Global Food Ingredient Company [Member] Represents a global food ingredient company. Investment, Policy [Policy Text Block] us-gaap_AccountsPayableCurrentAndNoncurrent Accounts Payable Concentration Risk, Credit Risk, Policy [Policy Text Block] Nonrelated Party [Member] us-gaap_CostsAndExpenses Total costs and expenses Costs and expenses: Retained Earnings [Member] Research and development revenue Revenue from Contract with Customer, Excluding Assessed Tax Title and Position [Domain] Title and Position [Axis] Treasury Stock, Common [Member] Additional Paid-in Capital [Member] Common Stock [Member] Equity Components [Axis] Equity Component [Domain] Net Carrying Amount us-gaap_DeferredFinanceCostsNet Debt Issuance Costs, Net us-gaap_DeferredFinanceCostsCurrentGross Unamortized Debt Issuance Costs - Related Party dyai_DeferredTaxAssetsValuationAllowanceCoveragePercent Deferred Tax Assets, Valuation Allowance Coverage, Percent Percent after allocation of valuation allowance coverage of deferred tax asset attributable to deductible temporary differences and carryforwards. Accounts Receivable [Policy Text Block] Cash and Cash Equivalents, Policy [Policy Text Block] Document Quarterly Report Entity Incorporation, State or Country Code General and Administrative Expense [Member] Accounting Policies [Abstract] Document Transition Report Basis of Accounting, Policy [Policy Text Block] Entity Interactive Data Current Related Party [Member] Security Exchange Name Title of 12(b) Security us-gaap_ProceedsFromIssuanceOfSeniorLongTermDebt Proceeds from Issuance of Senior Long-Term Debt dyai_ResearchServicesPurchased Research Services Purchased Represents the amount of research services purchased during the period. All Individuals [Member] Billing Status, Type [Axis] Research and Development Expense [Member] Receivables Billing Status [Domain] Unbilled Revenues [Member] Billed Revenues [Member] Statement of Income Location, Balance [Axis] Statement of Income Location, Balance [Domain] Individual [Axis] Schedule of Accounts, Notes, Loans and Financing Receivable [Table Text Block] Collaborative Arrangement Disclosure [Text Block] Consultant One [Member] Represents information regarding a first consultant. us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount Antidilutive Securities Excluded from Computation of Earnings Per Share, Amount (in shares) Consultant Two [Member] Represents information regarding a second consultant, or a second transaction with a consultant. Non-US [Member] Three CROs [Member] Represents information regarding three contract research organizations. Asset Class [Axis] Asset Class [Domain] Statement [Table] Statement of Financial Position [Abstract] dyai_ConcentrationRiskNumberOfSuppliers Concentration Risk, Number of Suppliers Represents the number of suppliers accounting for 10% or more of the specified concentration risk benchmark. Accounts Payable [Member] Basic and diluted net loss per common share (in dollars per share) Statement of Cash Flows [Abstract] Statement of Stockholders' Equity [Abstract] Income Statement [Abstract] Schedule of Accrued Liabilities [Table Text Block] Proceeds from issuance of convertible notes, net of issuance costs Schedule of Accounts Payable and Accrued Liabilities [Table Text Block] Corporate Bonds, allowance for credit loss Cash flows from financing activities Two Significant Customers [Member] Represents two significant customers. Inzymes Agreement APS [Member] Represents Inzymes Agreement ApS. us-gaap_StockholdersEquity Total stockholdersâ€™ equity Balance Balance Supplier [Axis] Class of Stock [Axis] Supplier [Domain] ecd_TradingArrByIndTable Trading Arrangements, by Individual [Table] EX-101.PRE 10 dyai-20240630_pre.xml XBRL TAXONOMY EXTENSION PRESENTATION LINKBASE GRAPHIC 11 logo.jpg begin 644 logo.jpg M_]C_X 02D9)1@ ! @$ > !X #_[0C 4&AO=&]S:&]P(#,N, X0DE- ^T M ! > $ 0!X 0 !.$))300- $ >#A"24T#\P M " .$))300* ! X0DE-)Q H 0 M ".$))30/U !("]F9@ ! &QF9@ & ! "]F9@ ! *&9F@ & M ! #(! %H & ! #4 ! "T & !.$)) M30/X !P #_____ ^@ _____ M_____P/H /_____\# MZ #_____ ^@ #A"24T$" $ M $) "0 X0DE-!!0 0 !.$))300, /S1B>4I(6TE<34Y/2EM<75Y?569G:&EJ:VQM;FC='5V=W MAY>GM\?7Y_<1 (" 0($! ,$!08'!P8%-0$ A$# (3$2!$%187$B$P4R@9$4 MH;%"(\%2T? S)&+A7U5F9VAI:FML;6YO8G-T=79W>'EZ>W MQ__: P# 0 "$0,1 #\ VGY+Z RUI#B 7; -?=[0I/ M^N/7\CZMW=1Q:65=0Z3?Z?5,5S=P+!]-]?NW5JQ]1;*Z\ [ZQE[@T#J#S)(&G MN\5#ZCLJSNH_67)$68.7E&MO=KQ#A9_G-FNZ;JWUNR\@=*Q/J M_L.;U?;:2]N]M=/^$<]H+?HNW?\ ;2A]>/K9U/H5N)B].#;;S6Z_*+F[OT3/ M:?:#^CW>_P!RI? XO.D8M'6NLVMEQP+CB8P=KMK)+S' 4K-R^J9&;]9NLY;.F MW]4QS4_IM1H!(8/HO<3M?])(1'%56(C\T6:\WJ_K3]9,G! ^JM?6NF%H?<:7, MWC<-MGTO;+5DW_6/ZZ]#9C=1ZW5BY'2[G,;: ['!#V! T7+ LSK;O\6E^!?(O MZ;EUTN8X0YK2[?6UP/[OO8NF^OV30/J0R@O:;KQ0RI@(+B1M=[6I<(%"@;D0 MJ^O@VG?6R^CZQ]4Q[W,=TO P6Y;-K8>20UW\Y/Y^[VK*_;W^,&[IQ^L-%.,W MI^MC,(M)M=5/T_WO]?H++ZCBY'[0Z]C 'UF=%QPYO?V"EUG_ $6.78](Z_TS M#^IF+U)]C31C8S&O:TC=O8T,=2!/\[O_ #4B " #=!._589_5?2/7]EGV,X MWJC @^INV_S/I;=V_P!7\]):?[=POV'^W-MGV3TO7V[?TFS_ (M),^G6D_5_ M_] ?53]2QU7-^T8V>ZXWV>MLM:UA=N. _:V?H;EL]+^OOU;Z1ALPL#IU]-#)(M:"TDD_2>]Q? N]Q!DN<=SG3Z;]=/JYTRW.NQ<3+#^HV&Z\N[Z1+MWDNL_P"9GU7_/*ZG[C_'KA/JUT MKIV7]<6D)$0EZ!Q;K9G6?]?EV M9UEF)G-_:3V69+&6,#2]AWM>QL^WW(73_ZC8.77EMP,V^VDAU8OL:]K7#Z+ MMF[;[5V?6_JG]7,;H^;?1@5,MJH>YCP#(<&DM<-5S_\ B[Z'TGJN#EV=0Q69 M#Z[6M8Y\R 6S&B/'E!X>+=0ARQA+)P2J) W[KU_7/ZM,ZQD=8^Q93LK*J%%K M7.8:RP?\'/DL9]WU#=DF[[#G-J+MYQ!:WT9_J;MVU>B_\R_JO_Y75?B#E&T@LOE?\W+[7+Q?KUTC)Z7FO;A6-QL&JL/I(9#F6.&, MVMC=VW\Y);-7U5^KU--U%>#6VK)#6W,$PX,=ZC-VOYK_')(>ON$<6"_DE5] M_P!'A_[]_!U5))))2EYK]4?_%]G?')_ZH+TI>:_5'_Q?9WQR?\ J@HY_-#S M;&#Y,W]Q[GZQ_P#(/4/_O9_P!25RW^*G_DW-_XYO\ U"ZGZQ_\@]0_\+V? M]25RW^*G_DW-_P"_;_U"1_G(^15#_7FY&+95BV&_9UC!R7%I :N>_Q<]*ZCTS!RZ_'?C/LM:YC7QJ MV)T)7@B21KC'>E1XO8G5?JI)?*J2>P/U4DOE5))3__V3A"24T$!@ M !P &0$ _^(,6$E#0U]04D]&24Q% $! ,2$QI;F\"$;6YT M ", * M #(-P [$ 10!* $\ 5 !9 %X 8P!H M &T <@!W 'P @0"& (L D "5)H GP"D *D K@"R +< O #! ,8 RP#0 -4 MVP#@ .4 ZP#P /8 ^P$! 0&!YD'K >_!]('Y0?X" L('P@R M"$8(6@AN"(((E@BJ"+X(T@CG"/L)$ DE"3H)3PED"7D)CPFD";H)SPGE"?I,* M$0HG"CT*5 IJ"H$*F JN"L4*W KS"PL+(@LY"U$+:0N "Y@+L O("^$+^0P2 M#"H,0PO&<#'4,C@RG#, ,V0SS#0T-)@U #5H-= V.#:D-PPW>#?@.$PXN#DD. M9 Y_#IL.M@[2#NX/"0\E#T$/7@]Z#Y8/LP_/#^P0"1 F$$,081!^$)L0N1#7 M$/41QQ$4\1;1&,$:H1R1'H$@<2)A)%$F02A!*C$L,2XQ,#$R,30Q-C$X,3 MI!/%$^44!A0G%$D4:A2+%*T4SA3P%1(5-!56%7@5FQ6]%> 6 Q8F%DD6;!:/ M%K(6UA;Z%QT701=E%XD7KA? 2%_<8&QA &&48BABO&-48^AD@&&449:QF1&;<9 MW1H$&BH:41IW&IX:Q1KL&Q0.QMC&XHLAO:' (<*AQ2''LP>%AY 'FH>E!Z^'ND?$Q\^'VD?E!^_'^H@%2!!(&P@F"#$(/ A M'"%((74AH2'.(? LB)R)5(H(BKR+=(PHC."-F(Y0CPB/P)!\D321\)*LDVB4) M)3@E:"67)< ^(#Y@/J ^X#\A/V$_HC_B0"- 9$"F0.=!*4%J0:O!['D(P0G)"M4+W M0SI#?4/ 1 -$1T2*1,Y%$D5519I%WD8B1F=&JTP1S5'>T? 2 5(2TB12-=) M'4EC2:E)\$HW2GU*Q$L,2U-+FDOB3"I,%W)7AI>;%Z]7P]?85^S8 5@5V"J8/QA3V&B8?5B26*<8O!C0V.78^MD M0&249.EE/6629>=F/6:29NAG/6>39^EH/VB6:.QI0VF::? %J2&J?:O=K3VNG M:_]L5VRO;0AM8&VYA)N:V[$;QYO>&_1<"MPAG#@<3IQE7'P,QY*GF)>>=Z1GJE>P1[8WO" M?"%\@7SA?4%]H7X!?F)^PG\C?X1_Y8!'@*B!"H%K@%JX8.AG*&UX<[AY^(! (AIB,Z),XF9B?Z*9(K*BS"+EHO\C&.,RHTQ MC9B-_XYFCLZ/-H^>D :0;!#6D3^1J)(1DGJ2XY--D[:4()2*E/257Y7)EC26 MGY<*EW67X)A,F+B9))F0F?R::)K5FT*;KYP0)ZNGQV?BY_Z MH&F@V*%'H;:B)J*6HP:C=J/FI%:DQZ4XI:FF&J:+IOVG;J?@J%*HQ*DWJ:FJ M'*J/JP*K=:OIK%RLT*U$K;BN+:ZAKQ:OB[L'6PZK%@L=:R2[+"LSBSKK0E MM)RU$[6*M@&V>;;PMVBWX+A9N-&Y2KG"NCNZM;LNNZ>\(;R;O16]C[X*OH2^ M_[]ZO_7 <,#LP6?!X\)?PMO#6,/4Q%'$SL5+QHM\IWZ_@-N"] MX43AS.)3XMOC8^/KY'/D_.6$Y@WFENV<[BCNM.] [\SP6/#E\7+Q__*,\QGSI_0T],+U4/7>]FWV^_>*^!GXJ/DX M^7I?'U^?W.$A8:'B(MF*BXR-CH^"DY25EI>8F9J;G)V>GY*CI*6FIZBI[]NLK:ZOH1 (" 0(#!04$ M!08$" ,#;0$ A$#!"$2,4$%41-A(@9Q@9$RH;'P%,'1X2-"%5)B)$@Q=4DP@)"A@9)C9%&B=D=%4W\J.SPR@IT^/SA)2D MM,34Y/1E=865I;7%U>7U1E9F=H:6IK;&UNV1U=G=X>7I[?'U^?W.$A8:'B(MF*BXR-CH^#E)66EYB9FINE?\Y1?\Y(>9/(7_ #BMI7Y[_E5/8QW^O/H-QISZA;_6 MX1:ZJ5,BF,.E6"M0&NQRK2Z83S^'/S^QGFRF,.(/GC6_^=,%M;\;V5Y MH8I2/K!C-^E%NQ;;V'U+TN?J& MY_W93[/Q=#QS"\.%^'8NZOHW\1KB^Q__T/:G_."] 8:?YW_YS3FO[VWLHD_ - MO4)'DN)4C4(IF+,2Q% .YS8ZT'@Q_P!5QM/SE[TH_P"<(+'3//OYB_\ .;?F MF%8=8_+KSUYY? 3;$TYVE]&L,JW+*>C*Z2@5'4')ZX0Q1Y$!&#U&1Z$L&_Y] MY?E%Y6\O?G1_SDSJMN;B[F_*OS#-Y&\D1W3^J++3)99+A^!:I#$*B;=@?YCE MG:.64L(^;/S2U_SQ_P Y,?\ .2WG*R_)3S1^=OE>XT&_M_*7R_+Y;@D>#3HP%CGE=Q%*I9V#-Q%#\67QQ"&&$3(1-\6_5K,[G(@$]&#:E MYXU+6_\ GVIYM_+GS$UQ'YE_)SS[IGE^\T^[1H[FVM)+GU[6.5&^)2A,D=#T MX4RP0$=8)#E(6Q,B<)!Z/N'_)SW\R:%!_SA)IGEY]1MIM<\S1>6K'0=*CD1 M[B>=1#(PCC4ECQ534@;?3F!V?`2

Document Fiscal Year Focus	2024
Document Type	10-Q
Document Quarterly Report	true
Document Period End Date	Jun. 30, 2024
Document Transition Report	false
Entity File Number	000-55264
Entity Incorporation, State or Country Code	DE
Entity Tax Identification Number	45-0486747
Entity Address, Address Line One	1044 North U.S. Highway One, Suite 201
Entity Address, City or Town	Jupiter
Entity Address, State or Province	FL
Entity Address, Postal Zip Code	33477
City Area Code	561
Local Phone Number	743-8333
Title of 12(b) Security	Common Stock, par value $0.001 per share
Trading Symbol	DYAI
Security Exchange Name	NASDAQ
Entity Current Reporting Status	Yes
Entity Interactive Data Current	Yes
Entity Filer Category	Non-accelerated Filer
Entity Small Business	true
Entity Emerging Growth Company	false
Entity Shell Company	false
Entity Common Stock, Shares Outstanding	29,477,639

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Consolidated Balance Sheets (Current Period Unaudited) - USD ($)	Jun. 30, 2024	Dec. 31, 2023
Current assets:		
Cash and cash equivalents	$ 6,133,398	$ 6,515,028
Short-term investment securities	3,964,517	748,290
Interest receivable	28,160	10,083
Accounts receivable	249,806	466,159
Prepaid expenses and other current assets	126,720	327,775
Total current assets	10,502,601	8,067,335
Non-current assets:		
Operating lease right-of-use asset, net	117,346	141,439
Other assets	10,425	10,462
Total assets	10,630,372	8,219,236
Current liabilities:		
Accounts payable	432,521	656,445
Accrued expenses	870,597	1,057,164
Deferred research and development obligations	482,323	490,113
Operating lease liability, current portion	51,075	48,059
Total current liabilities	1,948,516	2,251,781
Non-current liabilities:		
Operating lease liability, net of current portion	62,631	88,870
Total liabilities	7,462,190	2,340,651
Commitments and contingencies (Note 5)		
Stockholders' equity:		
Preferred stock, $.0001 par value: Authorized shares - 5,000,000; none issued and outstanding	0	0
Authorized shares - 100,000,000; issued shares - 41,731,141 and 41,064,563, outstanding shares - 29,477,639 and 28,811,061 as of June 30, 2024, and December 31, 2023, respectively	41,732	41,065
Additional paid-in capital	106,388,505	105,044,756
Treasury stock, shares held at cost - 12,253,502	(18,929,915)	(18,929,915)
Accumulated deficit	(84,332,140)	(80,277,321)
Total stockholders' equity	3,168,182	5,878,585
Total liabilities and stockholders' equity	10,630,372	8,219,236
Nonrelated Party [Member]		
Current liabilities:		
Accrued interest	80,000	0
Non-current liabilities:		
Convertible notes, net of issuance costs	3,893,602	0
Related Party [Member]		
Current liabilities:		
Accrued interest	32,000	0
Non-current liabilities:		
Convertible notes, net of issuance costs	$ 1,557,441	$ 0

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Consolidated Balance Sheets (Current Period Unaudited) (Parentheticals) - $ / shares	Jun. 30, 2024	Dec. 31, 2023
Preferred stock, par value (in dollars per share)	$ 0.0001	$ 0.0001
Preferred stock, shares authorized (in shares)	5,000,000	5,000,000
Preferred stock, shares issued (in shares)	0	0
Preferred stock, shares outstanding (in shares)	0	0
Common stock, par value (in dollars per share)	$ 0.001	$ 0.001
Common stock, authorized (in shares)	100,000,000	100,000,000
Common stock, issued (in shares)	41,731,141	41,064,563
Common stock, outstanding (in shares)	29,477,639	28,811,061
Treasury stock (in shares)	12,253,502	12,253,502

XML 16 R4.htm IDEA: XBRL DOCUMENT

Consolidated Statements of Operations (Unaudited) - USD ($)	3 Months Ended		6 Months Ended	
	Jun. 30, 2024	Jun. 30, 2023	Jun. 30, 2024	Jun. 30, 2023
Revenues:				
Research and development revenue	$ 385,896	$ 837,159	$ 720,513	$ 1,815,211
Costs and expenses:				
Costs of research and development revenue	301,956	792,944	445,911	1,519,862
Research and development	515,629	917,552	1,038,352	1,728,118
General and administrative	1,607,756	1,402,569	3,396,350	2,882,609
Foreign currency exchange loss	3,146	14,521	8,049	25,543
Total costs and expenses	2,428,487	3,127,586	4,888,662	6,156,132
Loss from operations	(2,042,591)	(2,290,427)	(4,168,149)	(4,340,921)
Other income (expense):				
Interest income	138,471	109,194	225,914	213,925

Gain on sale of Alphazyme	0	28,273	60,977	1,017,592
Total other income (expense), net	(2,632)	137,467	113,330	1,231,517
Net loss	$ (2,045,223)	$ (2,152,960)	$ (4,054,819)	$ (3,109,404)
Basic and diluted net loss per common share (in dollars per share)	$ (0.07)	$ (0.07)	$ (0.14)	$ (0.11)
Basic and diluted weighted-average common shares outstanding (in shares)	29,291,259	28,881,061	29,085,696	28,786,402
Nonrelated Party [Member]				
Other income (expense):				
Interest expense	$ (88,634)	$ 0	$ (110,273)	$ 0
Related Party [Member]				
Other income (expense):				
Interest expense	(52,469)	0	(63,288)	0
Research and Development [Member]				
Revenues:				
Research and development revenue	385,896	793,042	720,513	1,726,976
License [Member]				
Revenues:				
Research and development revenue	$ 0	$ 44,117	$ 0	$ 88,235

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Consolidated Statements of Stockholders' Equity (Unaudited) - USD ($)	**Common Stock [Member]**	**Treasury Stock, Common [Member]**	**Additional Paid-in Capital [Member]**	**Retained Earnings [Member]**	**Total**
June 30, 2023 (in shares)	40,816,602	(12,253,502)			
Balance (in shares) at Dec. 31, 2022	40,816,602	(12,253,502)			
Balance at Dec. 31, 2022	$ 40,817	$ (18,929,915)	$ 103,458,697	$ (73,481,860)	$ 11,087,739
Stock-based compensation expense	$ 0	$ 0	330,639	0	330,639
Issuance of common stock upon vesting of restricted stock units (in shares)	247,961	0			
Issuance of common stock upon vesting of restricted stock units	$ 248	$ 0	341,938	0	342,186
Net loss	$ 0	$ 0	0	(956,444)	(956,444)
Balance (in shares) at Mar. 31, 2023	41,064,563	(12,253,502)			
Balance at Mar. 31, 2023	$ 41,065	$ (18,929,915)	104,131,274	(74,438,304)	10,804,120
Balance (in shares) at Dec. 31, 2022	40,816,602	(12,253,502)			
Balance at Dec. 31, 2022	$ 40,817	$ (18,929,915)	103,458,697	(73,481,860)	11,087,739
Issuance of common stock upon vesting of restricted stock units (in shares)	247,961				
Net loss					(3,109,404)
Balance (in shares) at Jun. 30, 2023	41,064,563	(12,253,502)			
Balance at Jun. 30, 2023	$ 41,065	$ (18,929,915)	104,465,590	(76,591,264)	8,985,476
June 30, 2023 (in shares)	41,064,563	(12,253,502)			
Balance (in shares) at Mar. 31, 2023	41,064,563	(12,253,502)			
Balance at Mar. 31, 2023	$ 41,065	$ (18,929,915)	104,131,274	(74,438,304)	10,804,120
Stock-based compensation expense	0	0	334,316	0	334,316
Net loss	$ 0	$ 0	0	(2,152,960)	(2,152,960)
Balance (in shares) at Jun. 30, 2023	41,064,563	(12,253,502)			
Balance at Jun. 30, 2023	$ 41,065	$ (18,929,915)	104,465,590	(76,591,264)	8,985,476
June 30, 2023 (in shares)	41,064,563	(12,253,502)			
June 30, 2023 (in shares)	41,064,563	(12,253,502)			
Balance (in shares) at Dec. 31, 2023	41,064,563	(12,253,502)			
Balance at Dec. 31, 2023	$ 41,065	$ (18,929,915)	105,044,756	(80,277,321)	5,878,585
Stock-based compensation expense	$ 0	0	306,478	0	306,478
Issuance of common stock upon vesting of restricted stock units (in shares)	375,753				
Issuance of common stock upon vesting of restricted stock units	$ 376	0	339,959	0	340,335
Net loss	$ 0	$ 0	0	(2,009,596)	(2,009,596)
Balance (in shares) at Mar. 31, 2024	41,440,316	(12,253,502)			
Balance at Mar. 31, 2024	$ 41,441	$ (18,929,915)	105,691,193	(82,286,917)	4,515,802
Balance (in shares) at Dec. 31, 2023	41,064,563	(12,253,502)			
Balance at Dec. 31, 2023	$ 41,065	$ (18,929,915)	105,044,756	(80,277,321)	5,878,585
Issuance of common stock upon vesting of restricted stock units (in shares)	61,793				
Net loss					$ (4,054,819)
Issuance of common stock upon exercise of stock options (in shares)	5,569				30,000
Issuance of common stock upon settlement of convertible debt (in shares)					223,463
Balance (in shares) at Jun. 30, 2024	41,731,141	(12,253,502)			
Balance at Jun. 30, 2024	$ 41,732	$ (18,929,915)	106,388,505	(84,332,140)	$ 3,168,182
June 30, 2023 (in shares)	41,440,316	(12,253,502)			
Balance (in shares) at Mar. 31, 2024	41,440,316	(12,253,502)			
Balance at Mar. 31, 2024	$ 41,441	$ (18,929,915)	105,691,193	(82,286,917)	4,515,802
Stock-based compensation expense	$ 0	0	297,603	0	297,603
Issuance of common stock upon vesting of restricted stock units (in shares)	61,793				
Issuance of common stock upon vesting of restricted stock units	$ 62	0	(62)	0	0
Net loss	$ 0	0	0	(2,045,223)	(2,045,223)
Issuance of common stock upon exercise of stock options (in shares)	5,569				
Issuance of common stock upon exercise of stock options	$ 6	$ 0	(6)	0	0
Issuance of common stock upon settlement of convertible debt (in shares)	223,463	0			
Issuance of common stock upon settlement of convertible debt	$ 223	$ 0	399,777	0	400,000
Balance (in shares) at Jun. 30, 2024	41,731,141	(12,253,502)			
Balance at Jun. 30, 2024	$ 41,732	$ (18,929,915)	$ 106,388,505	$ (84,332,140)	$ 3,168,182
June 30, 2023 (in shares)	41,731,141	(12,253,502)			

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Consolidated Statements of Cash Flows (Unaudited) - USD ($)	**6 Months Ended**	
	Jun. 30, 2024	**Jun. 30, 2023**
Cash flows from operating activities		
Net loss	$ (4,054,819)	$ (3,109,404)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	604,081	664,955
Amortization of held-to-maturity securities, net	(27,699)	(25,889)

Amortization of debt issuance costs	26,717	0
Gain from the sale of investment in Alphazyme	(60,977)	(1,017,592)
Foreign currency exchange loss (gain), net	8,049	25,543
Changes in operating assets and liabilities:		
Interest receivable	(18,077)	22,232
Accounts receivable	210,725	(429,790)
Prepaid expenses and other current assets	201,073	256,484
Operating lease assets and liabilities	870	0
Accounts payable	(224,307)	(404,801)
Accrued expenses	152,800	296,587
Deferred research and development obligation	(7,790)	(31,743)
Deferred license revenue	0	(88,236)
Net cash used in operating activities	(3,077,354)	(3,841,654)
Cash flows from investing activities		
Purchases of held-to-maturity investment securities	(4,734,528)	(1,977,166)
Proceeds from maturities of investment securities	1,546,000	4,563,000
Proceeds from the sale of investment in Alphazyme	60,977	1,302,524
Net cash (used in) provided by investing activities	(3,127,551)	3,888,358
Cash flows from financing activities		
Net cash provided by financing activities	5,824,326	0
Effect of exchange rate changes on cash	(1,051)	615
Net (decrease) increase in cash and cash equivalents	(381,630)	47,319
Cash and cash equivalents at beginning of period	6,515,028	5,794,272
Cash and cash equivalents at end of period	6,133,398	5,841,591
Supplemental cash flow information		
Vesting of restricted stock units	439,085	342,186
Conversion of convertible notes	400,000	0
Cash paid for interest	34,844	0
Nonrelated Party [Member]		
Changes in operating assets and liabilities:		
Accrued interest	80,000	0
Cash flows from financing activities		
Proceeds from issuance of convertible notes, net of issuance costs	3,882,884	0
Related Party [Member]		
Changes in operating assets and liabilities:		
Accrued interest	32,000	0
Cash flows from financing activities		
Proceeds from issuance of convertible notes, net of issuance costs	$ 1,941,442	$ 0

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Note 1 - Organization and Summary of Significant Accounting Policies	**6 Months Ended**
	Jun. 30, 2024
Notes to Financial Statements	
Basis of Presentation and Significant Accounting Policies [Text Block]	

Note 1: Organization and Summary of Significant Accounting Policies

Description of Business

Dyadic International, Inc. ("Dyadic", "we", "us", "our", or the "Company") is a global biotechnology company based in Jupiter, Florida with operations in the United States and a satellite office in the Netherlands, and it utilizes several third-party consultants and research organizations to carry out the Company's activities. Over the past two plus decades, the Company has developed a gene expression platform for producing commercial quantities of industrial enzymes and other proteins, and has previously licensed this technology to third parties, such as Abengoa Bioenergy SA, BASF SE, Codexis, Inc. and others, for use in industrial (non-pharmaceutical) applications. This technology is based on the *Thermothelomyces heterothallica* (formerly known as *Myceliophthora thermophila*) fungus, which the Company named C1.

Subsequent to the Company selling its industrial technology business to Danisco USA ("Danisco"), the industrial biosciences business of DuPont (NYSE: DD) (the "DuPont Transaction") on December 31, 2015, the Company has been focused on building the C1-cell protein production platform for the development and production of biologic products including enzymes and other proteins for human and animal health. Some examples of human and animal vaccines and drugs which have the potential to be produced from C1-cells are protein antigens, ferritin nanoparticles, virus-like particles ("VLPs"), monoclonal antibodies ("mAbs"), Bi/Tri-specific antibodies, Fab antibody fragments, Fcfusion proteins, as well as other therapeutic enzymes and proteins. The Company is involved in multiple funded research collaborations with animal and human pharmaceutical companies which are designed to leverage its C1-cell protein production platform to develop innovative vaccines and drugs, biosimilars and/or biobetters.

The Company also developed the Dapibus™ thermophilic filamentous fungal based microbial protein production platform to enable the rapid development and large-scale manufacture of low-cost proteins, metabolites, and other biologic products for use in non-pharmaceutical applications, such as food, nutrition, and wellness.

Liquidity and Capital Resources

The Company expects to incur losses and have negative net cash flows from operating activities as it continues developing its microbial platforms and related products, and as it expands its pipelines and engages in further research and development activities for internal products as well as for its third-party collaborators and licensees. The success of the Company depends on its ability to develop its technologies and products to the point of regulatory approval and subsequent revenue generation or through the sublicensing of the Company's technologies and products, and its ability to raise capital to finance these developmental efforts.

On March 8, 2024, the Company issued an aggregate principal amount of $6.0 million of its 8.0% Senior Secured Convertible Promissory Notes due March 8, 2027 (the "Convertible Notes") in a private placement in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended (the "Securities Act"). The purchasers of the Convertible Notes include immediate family members and family trusts related to Mark Emalfarb, our President and Chief Executive Officer and a member of our Board of Directors, including The Francisco Trust, an existing holder of more than 5% of the Company's outstanding common stock, (collectively, the "Purchasers"). The net proceeds from the sale of the Convertible Notes, after deducting offering expenses, is $5,824,000. The Company intends to use the net proceeds from the offering of the Convertible Notes for working capital and general corporate purposes.

The Convertible Notes are senior, secured obligations of Dyadic and its affiliates, and interest is payable quarterly in cash on the principal amount equal to 8% per annum. The Convertible Notes will mature on March 8, 2027 (the "Maturity Date"), unless earlier converted, repurchased, or redeemed in accordance with the terms of the Convertible Notes.

The Convertible Notes can be converted into shares of Dyadic's Class A common stock (the "Common Stock"), at the option of the holders of the Convertible Notes (the "Noteholders") at any time prior to the Maturity Date. The conversion price is $1.79 per share of the Common Stock, which is equal to 125% of the trailing 30-day VWAP of the Common Stock ending on the trading day immediately preceding the date of the securities purchase agreement. As of June 30, 2024, $400,000 of the Convertible Notes were converted into 223.463 shares of Common Stock. For more information regarding the Convertible Notes, including the covenants related thereto see Note 4 to the Consolidated Financial Statements.

This private placement funding will support our near-term revenue growth and accelerate our strategic objective of commercialization opportunities for pharmaceutical and non-pharmaceutical applications.

The Company expects its existing cash and cash equivalents and cash raised from the Convertible Notes, investments in debt securities, and operating cash flows will be sufficient to meet its operational, business, and other liquidity requirements for at least the next twelve (12) months from the date of issuance of the financial statements contained in this Quarterly Report. However, the Company has based this estimate on assumptions that may prove to be wrong, and its operating plan may change as a result of many factors currently unknown to it. In the event our financing needs are not able to be met by our existing cash, cash equivalents and investments, we would seek to raise additional capital through strategic financial opportunities that could include, but are not limited to, future public or private equity offerings, collaboration agreements, and/or other means. Any amounts raised may be used for the further development and commercialization of product candidates, and for other working capital purposes. There is no guarantee that any of these strategic or financing opportunities will be executed or realized on favorable terms, if at all, and some could be dilutive to existing shareholders.

Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements, including the accounts of the Company and its wholly owned subsidiaries, have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") as found in the Accounting Standards Codification ("ASC"), Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB") and applicable rules and regulations of the Securities and Exchange Commission ("SEC") regarding interim financial reporting. Certain information and footnote disclosures normally included in consolidated financial statements have been condensed or omitted pursuant to such rules and regulations. All significant intra-entity transactions and balances have been eliminated in consolidation. The information included in this Quarterly Report should be read in conjunction with the audited consolidated financial statements and footnotes as of and for the year ended December 31, 2023, included in our Annual Report.

In the opinion of management, the accompanying unaudited interim consolidated financial statements reflect all adjustments, which are of a normal recurring nature, considered necessary for a fair presentation of all periods presented. The results of the Company's operations for any interim periods are not necessarily indicative of the results of operations for any other interim period or for a full fiscal year.

The Company conducts business in one operating segment, which is identified by the Company based on how resources are allocated, and operating decisions are made. Management evaluates performance and allocates resources based on the Company as a whole.

Use of Estimates

The preparation of these consolidated financial statements in accordance with GAAP requires management to make estimates and judgments that affect the reported amount of assets and liabilities

and related disclosure of contingent assets and liabilities at the date of our consolidated financial statements and the reported amounts of revenues and expenses during the applicable period. Estimates inherent in the preparation of these consolidated financial statements include, but are not limited to, estimates related to revenue recognition, accrued expenses, stock-based compensation expense, and income taxes. The Company bases its estimates on historical experience and other market specific or other relevant assumptions it believes to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts, and experience. Actual results may differ from these estimates under different assumptions or conditions. Such differences could be material to the consolidated financial statements.

Concentrations and Credit Risk

The Company's financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash and cash equivalents, investment securities, and accounts receivable. At times, the Company has cash, cash equivalents, and investment securities at financial institutions exceeding the Federal Depository Insurance Company ("FDIC") and the Securities Investor Protection Corporation ("SIPC") insured limit on domestic currency and the Netherlands' FDIC counterpart for foreign currency. The Company currently deals with four reputable financial institutions and has not experienced any losses in those accounts.

For the three months ended June 30, 2024 and 2023, the Company's revenue was generated from ten and eight customers, respectively. For the six months ended June 30, 2024 and 2023, the Company's revenue was generated from thirteen and eight customers, respectively. Significant customers are those that account for greater than 10% of the Company's revenues. For the three months ended June 30, 2024 and 2023, four and three significant customers accounted for $285,000 or 73.7% and $525,000 or 66.2% of research and development revenue, respectively. For the six months ended June 30, 2024 and 2023, five and three significant customers accounted for 506,000 or 70.3% and $1,152,000 or 66.7% of research and development revenue, respectively.

As of June 30, 2024 and December 31, 2023, accounts receivable was from six and thirteen customers, of which, three and two customers accounted for $191,000 or 76.3% and $1,150,000 or 45.2% of total accounts receivable, respectively. The loss of business from one or a combination of the Company's customers could adversely affect its operations.

The Company conducts operations in the Netherlands through its foreign subsidiary and generates a portion of its revenues from customers that are located outside of the United States. For the three months ended June 30, 2024 and 2023, the Company had four and two customers outside of the United States (i.e., European customers) that accounted for $106,000 or 27.5% and $98,000 or 12.4% of research and development revenue, respectively. For the six months ended June 30, 2024 and 2023, the Company had seven and two customers outside of the United States (i.e., European customers) that accounted for $304,000 or 42.2% and $187,000 or 10.8% of research and development revenue, respectively.

As of June 30, 2024 and December 31, 2023, the Company had three and six customers outside of the United States (i.e., European customers) that accounted for $108,000 or 43.3% and $213,000 or 45.6% of accounts receivable, respectively.

The Company uses several contract research organizations ("CROs") to conduct its research projects. For the three months ended June 30, 2024 and 2023, two and three CROs accounted for $598,000 or 96.5% and $1,586,000 or 99.4% of total research services we purchased, respectively. For the six months ended June 30, 2024 and 2023, two and three CROs accounted for $957,000 or 90.2% and $2,662,000 or 97.6% of total research services we purchased, respectively. As of June 30, 2024 and December 31, 2023, two and three CROs accounted for $195,000 or 35.9% and $620,000 or 94.4% of accounts payable, respectively. The loss of one CRO or a combination of the Company's CROs could adversely affect its operations.

Cash and Cash Equivalents

We treat highly liquid investments with original maturities of three months or less when purchased as cash equivalents, including money market funds, which are unrestricted for withdrawal or use.

Investment Securities

The Company's investment policy requires investment securities to be investment grade and held to maturity with the primary objective to maintain a high degree of liquidity while maximizing yield. The Company invests excess cash balances in short-term and long-term investment grade securities. Short-term investment securities mature within twelve (12) months or less, and long-term investment securities mature over twelve (12) months from the applicable reporting date. Management determines the appropriate classification of each investment at the time of purchase and reevaluates the classifications at each balance sheet date.

The Company classifies its investments in debt securities as held-to-maturity. Held-to-maturity securities are those securities that the Company has the ability and intent to hold until maturity. Held-to-maturity securities are recorded at amortized cost, net of allowance for credit losses if applicable, and adjusted for the amortization or accretion of premiums or discounts. Premiums and discounts are amortized over the life of the related held-to-maturity security. When a debt security is purchased at a premium, both the face value of the debt and premium amount are reflected as investing outflow.

When evaluating an investment for other-than-temporary impairment, the Company reviews factors such as the length of time and extent to which fair value has been below its cost basis, the financial condition of the issuer and any changes thereto, changes in market interest rates, and whether it is more likely than not the Company will be required to sell the investment before recovery of the investment's cost basis. The Company measures expected credit losses on held to maturity debt securities on an individual security basis. The estimate of expected credit losses considers historical credit information from external sources. The impairment of the investment that is related to the credit loss, if any, is expensed in the period in which the event or change occurred.

The Company classifies its investments in money market funds as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets. As of June 30, 2024 and December 31, 2023, all of our money market funds were invested in U.S. Government money market funds, for which the risk of loss is minimal.

As of June 30, 2024, and December 31, 2023, the Company did not have any investment securities classified as trading.

Accounts Receivable

Accounts receivable consist of billed receivables currently due from customers and unbilled receivables. Unbilled receivables represent the excess of contract revenue (or amounts reimbursable under contracts) over billings to date. Such amounts become billable in accordance with the contract terms, which usually consider the passage of time, achievement of certain milestones or completion of the project.

Accounts receivable are stated net of an allowance for credit losses, if deemed necessary based on the Company's evaluation of collectability and potential credit losses. Management assesses the collectability of its accounts receivable using the specific identification of account balances and considers the credit quality and financial condition of its significant customers, historical information regarding credit losses and the Company's evaluation of current and expected future economic conditions and changes in our customer collection trends. If necessary, an allowance for credit losses is recorded against accounts receivable such that the carrying value of accounts receivable reflects the net amount expected to be collected. Accounts receivable balances are written off against the allowance for credit losses when the potential for collectability is considered remote. Substantially all of our accounts receivable were current and include unbilled amounts that will be billed and collected over the next twelve (12) months. Management determined that no allowance for credit losses was required as of June 30, 2024, and December 31, 2023.

Accounts receivable consist of the following:

	June 30, 2024	December 31, 2023
	(Unaudited)	(Audited)
Billed receivable	$ 188,084	$ 410,617
Unbilled receivable	61,722	55,542
	$ 249,806	$ 466,159

Accounts Payable

Accounts payable consist of the following:

	June 30, 2024	December 31, 2023
	(Unaudited)	(Audited)
Research and development expenses	$ 204,354	$ 575,436
Legal expenses	158,228	1,957
Other	69,939	79,052
	$ 432,521	$ 656,445

Accrued Expenses

Accrued expenses consist of the following:

	June 30, 2024	December 31, 2023
	(Unaudited)	(Audited)
Employee wages and benefits	$ 330,181	$ 561,720
Research and development expenses	499,056	274,080
Legal expenses	41,360	210,004
Other	—	11,360
	$ 870,597	$ 1,057,164

Deferred Financing Costs

Deferred financing costs represent costs incurred in connection with the issuance of debt instruments and equity financings. Deferred financing costs related to the issuance of debt are amortized over the term of the financing instrument using the effective interest method and are presented in the consolidated balance sheets as an offset against the related debt. Offering costs from equity financings are netted against the gross proceeds received from the equity financings. See Note 4 for the amortization amount.

Research and Development Costs

Research and development ("R&D") costs are expensed as incurred. R&D costs are for the Company's internally funded pharmaceutical programs and other governmental and commercial projects.

Research and development costs consist of personnel-related costs, facilities, research-related overhead, services from independent contract research organizations, and other external costs. Research and development costs, including related party, for the three and six months ended June 30, 2024 and 2023 were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
	(Unaudited)	(Unaudited)	(Unaudited)	(Unaudited)
Outside contracted services	$ 395,188	$ 748,139	$ 783,434	$ 1,391,186
Personnel related costs	106,889	147,414	213,216	299,608
Facilities, overhead and other	13,552	21,999	41,702	37,324
	$ 515,629	$ 917,552	$ 1,038,352	$ 1,728,118

Foreign Currency Transaction Gain or Loss

The Company and its foreign subsidiary use the U.S. dollar as its functional currency, and initially measure the foreign currency denominated assets and liabilities at the transaction date. Monetary assets and liabilities are then re-measured at exchange rates in effect at the end of each period, and property and non-monetary assets and liabilities are carried at historical rates.

Fair Value Measurements

The Company applies fair value accounting for certain financial instruments that are recognized or disclosed at fair value in the financial statements. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

- *Level 1* – Quoted prices in active markets for identical assets or liabilities.
- *Level 2* – Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- *Level 3* – Inputs that are generally unobservable and typically reflect management's estimate of assumptions that market participants would use in pricing the asset or liability.

The Company's financial instruments included cash and cash equivalents, investment in debt securities, accounts receivable, accounts payable and accrued expenses, accrued payroll and related liabilities, deferred research and development obligations, deposits, and the Company's 8% Senior Secured Convertible Promissory Notes (the "Convertible Notes"), due March 2027. The carrying amount of these financial instruments, except for investment in debt securities and Convertible Notes, approximates fair value due to the short-term maturities of these instruments. The Company's short-term and long-term investments in debt securities are recorded at amortized cost, and their estimated fair value amounts are provided by the third-party broker service for disclosure purposes. See Note 4 for additional information related to the Convertible Notes.

Income Taxes

For the six months ended June 30, 2024, there was no provision for income taxes or unrecognized tax benefits recorded. As of June 30, 2024 and December 31, 2023, deferred tax assets were $17.8 million and $16.4 million, respectively. Due to the Company's history of operating losses and the uncertainty regarding our ability to generate taxable income in the future, the Company has established a 100% valuation allowance against deferred tax assets as of June 30, 2024 and December 31, 2023.

Stock-Based Compensation

We recognize all share-based payments to employees, consultants, and our Board of Directors (the "Board"), as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations based on the grant date fair values of such payments. Stock-based compensation expense recognized each period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur.

For performance-based awards, the Company recognizes related stock-based compensation expenses based upon its determination of the potential likelihood of achievement of the specified performance conditions at each reporting date.

Net Loss Per Share

Basic net loss per share is computed by dividing net loss available to common shareholders by the weighted average number of common stock shares outstanding during the reporting period. Diluted net loss per share adjusts the weighted average number of common stock shares outstanding for the potential dilution that could occur if common stock equivalents, such as stock options were exercised and converted into common stock, calculated by applying the treasury stock method.

For the three and six months ended June 30, 2024, a total of 5,948,147 shares of potentially dilutive securities, including 117,925 shares of unvested restrict stock units and options to purchase 5,830,222 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive. For the three and six months ended June 30, 2023, a total of 5,619,491 shares of potentially dilutive securities, including 163,044 shares of unvested restrict stock units and options to purchase 5,456,447 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive

Recent Accounting Pronouncements Not Adopted as of June 30, 2024

In December 2023, the FASB issued Accounting Standards Update 2023-09 – Income Taxes (Topic ASC 740) Income Taxes. The ASU improves the transparency of income tax disclosures by requiring (1) consistent categories and greater disaggregation of information in the rate reconciliation and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. The amendments in ASU 2023-09 will become effective for annual periods beginning January 1, 2025. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. We do not expect that this guidance will have a material impact on our financial position and results of operations.

In November 2023, the FASB issued Accounting Standards Update 2023-07 – Segment Reporting (Topic ASC 280) Improvements to Reportable Segment Disclosures. The ASU improves reportable segment disclosure requirements, primarily through enhanced disclosure about significant segment expenses. The enhancements under this update require disclosure of significant segment expenses that are regularly provided to the Chief Operating Decision Maker ("CODM") and included within each reported measure of segment profit or loss, require disclosure of *other segment items* by reportable segment and a description of the composition of *other segment items*, require annual disclosures under ASC 280 to be provided in interim periods, clarify use of more than one measure of segment profit or loss by the CODM, require that the title of the CODM be disclosed with an explanation of how the CODM uses the reported measures of segment profit or loss to make decisions, and require that entities with a single reportable segment provide all disclosures required by this update and required under ASC 280. ASU 2023-07 is effective for public business entities for fiscal years beginning January 1, 2024, and interim periods beginning January 1, 2025, with early adoption permitted. We do not expect that this guidance will have a material impact on our financial position and results of operations.

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Note 2 - Cash, Cash Equivalents, and Investments

6 Months Ended

Jun. 30, 2024

Notes to Financial Statements

Cash, Cash Equivalents, and Marketable Securities [Text Block]

Note 2: Cash, Cash Equivalents, and Investments

The Company's investments in debt securities are classified as held-to-maturity and are recorded at amortized cost, net of allowance for credit losses, and its investments in money market funds are classified as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets. The following table shows the Company's cash, available-for-sale securities, and investment securities by major security type as of June 30, 2024, and December 31, 2023:

	June 30, 2024 (Unaudited)					
	Level (1)	Fair Value	Allowance for Credit Losses	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Adjusted Cost
Cash and Cash Equivalents						
Cash		$ 683,233	$ —	$ —	$ —	$ 683,233
Money Market Funds (2)	1	5,450,165	—	—	—	5,450,165
Subtotal		6,133,398	—	—	—	6,133,398
Short-Term Investment Securities (3)						
Corporate Bonds (4)(5)	2	3,962,295	—	—	(2,222)	3,964,517
Total		$ 10,095,693	$ —	$ —	$ (2,222)	$ 10,097,915

	December 31, 2023 (Audited)					
	Level (1)	Fair Value	Allowance for Credit Losses	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Adjusted Cost
Cash and Cash Equivalents						
Cash		$ 25,775	$ —	$ —	$ —	$ 25,775
Money Market Funds (2)	1	6,489,253	—	—	—	6,489,253
Subtotal		6,515,028	—	—	—	6,515,028
Short-Term Investment Securities (3)						
Corporate Bonds (4)(5)	2	748,105	—	—	(185)	748,290
Total		$ 7,263,133	$ —	$ —	$ (185)	$ 7,263,318

Notes:
(1) Definition of the three-level fair value hierarchy:
- Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 - Other inputs that are directly or indirectly observable in the markets
- Level 3 - Inputs that are generally unobservable

(2) All our money market funds were invested in U.S. Government money market funds.
(3) Short-term investment securities will mature within 12 months or less, from the applicable reporting date.
(4) For the three months ended June 30, 2024 and 2023, the Company received discounts of $31,357 and $17,601 to purchase held-to-maturity investment securities, respectively. For the six months ended June 30, 2024 and 2023, the Company received discounts of $61,472 and $32,834 to purchase held-to-maturity investment securities, respectively. For the year ended December 31, 2023, the Company received discounts of $39,012 to purchase held-to-maturity investment securities.
(5) The Company considers the declines in market value of its investment portfolio to be temporary in nature. As of June 30, 2024 and December 31, 2023, the Company did not consider any of its investments to be other-than-temporarily impaired and no allowance for credit losses was recorded.

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Note 3 - Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies

6 Months Ended

Jun. 30, 2024

Notes to Financial Statements

Collaborative Arrangement Disclosure [Text Block]

Note 3: Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies

Proliant

On June 27, 2024, the Company entered into a License and Development Agreement (the "Proliant Agreement") with Proliant Biologicals, LLC d/b/a Proliant Health and Biologicals ("Proliant"), pursuant to which Proliant will license Dyadic's proprietary fungal microbial expression and production platforms and microbial strains for the production of recombinant serum albumin. Under the terms of the Proliant Agreement, Dyadic will receive an initial upfront payment of $500,000, a second payment of $500,000 upon the completion of the transfer of a Production Strain (as defined in the Proliant Agreement.), and a final payment of $500,000 upon the meeting of a certain productivity threshold. Dyadic also will receive a share of the profits received by Proliant from the sale of animal-free recombinant serum albumin products produced pursuant to the Proliant Agreement.

In July 2024, the Company has received the initial payment of $500,000. For the three and six months ended June 30, 2024, there was no revenue recognized related to the Proliant Agreement.

Inzymes ApS

On September 18, 2023, Dyadic International (USA) Inc., a subsidiary of the Company, signed a Development and Exclusive License Agreement (the "Inzymes Agreement") with Inzymes ApS ("Inzymes"), a Denmark corporation, to develop and commercialize certain non-animal dairy enzymes used in the production of food products using Dyadic's proprietary Dapibus™ platform.

Under the terms of the Inzymes Agreement, a research collaboration to develop a basket of dairy enzymes will be fully funded by Inzymes with an upfront payment of $0.6 million and an additional payment payable upon the first commercial sale of product. Dyadic will also be eligible to receive success fees upon the achievement of certain target yields, milestone payments upon first commercial sale of each product and royalties.

In October 2023, the Company received an upfront payment of $0.6 million in accordance with the terms of the Inzymes Agreement. The payment consisted of funding for specified product research and development efforts and right of first refusal for certain product candidates. For the three and six months ended June 30, 2024, the Company recorded research and development revenues of $52,000 and $92,000, respectively. in connection with the Inzymes Agreement.

A Global Food Ingredient Company

On May 10, 2022, the Company entered into a Joint Development Agreement (the "JDA") with a Global Food Ingredient Company ("GFIC") to develop and manufacture several animal free ingredient products using the Company's biotechnologies.

Under the initial terms of the JDA, Dyadic was to develop its proprietary production cell lines for the manufacture of animal free ingredient product candidates. The GFIC has completed its one-year funding commitment for the initial phase of research collaboration in an amount approximating $1.35 million, and, pursuant to the GFIC's rights under the JDA, the Company and the GFIC are in discussions related to the potential development of other animal free ingredient products. The Company is also considering other funding sources to continue the original project.

For the three and six months ended June 30, 2024, there was no revenue recognized related to this JDA. For the three and six months ended June 30, 2023, the Company recorded research and development revenues of approximately $226,000 and $565,000, as well as Success Fees of approximately $65,500 in connection with the JDA, respectively.

Janssen

On December 16, 2021, the Company entered a Research, License, and Collaboration Agreement (the "Janssen Agreement") for the manufacture of therapeutic protein candidates using its C1-cell protein production platform with Janssen Biotech, Inc., one of the Janssen Pharmaceutical Companies of Johnson & Johnson ("Janssen").

On October 2, 2023, Janssen provided written notice to Dyadic that it has decided to wind down the collaboration with an effective end date of December 31, 2023.

For the three and six months ended June 30, 2024, there was no revenue recognized related to the Janssen Agreement. For the three and six months ended June 30, 2023, the Company recognized approximately $44,000 and $88,000 of license revenue, respectively. For the three and six months ended June 30, 2023, the Company recorded research and development revenues of approximately $191,000 and $380,000, respectively, in connection with the Janssen Agreement.

Alphazyme

In 2019 the Company entered into a sub-licensing agreement with Alphazyme, LLC ("Alphazyme") that was subsequently amended (the "Amended Alphazyme LLC Agreement"). Under the Amended Alphazyme LLC Agreement, Alphazyme obtained additional capital contribution and Dyadic's ownership was diluted to 1.99%.

The Company evaluated the nature of its equity interest investment in Alphazyme and determined that Alphazyme is a VIE due to the capital structure of the entity. However, the Company is not the primary beneficiary of Alphazyme as Dyadic does not have the power to control or direct the activities of Alphazyme that most significantly impact the VIE. As a result, the Company does not consolidate its investment in Alphazyme. The Company reports its investment in Alphazyme under the cost method of accounting, given that it does not have the ability to exercise significant influence or control over Alphazyme.

On January 18, 2023, the Company entered into a Securities Purchase Agreement, under which the Company agreed to sell its equity interest in Alphazyme, LLC (the "Alphazyme Sale Agreement"). The Company continues to have the potential to receive additional payments based on the future sales of Alphazyme's existing products, pursuant to the Alphazyme Sale Agreement.

The Amended Sublicense Agreement between Dyadic and Alphazyme, which was previously entered on June 24, 2020, remains in effect. Under the Amended Alphazyme Sub-License Agreement, Dyadic is entitled to potential milestone and royalty payments upon the commercialization of Alphazyme products using Dyadic's proprietary C1-cell protein production platform.

For the year ended December 31, 2023, the Company received a total cash payment of $1.3 million from the sale of its equity interest in Alphazyme, LLC. In the first quarter of 2024, the Company received an additional cash payment of $61,977, which was recorded as gain on sale of Alphazyme in the consolidated statement of operations.

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Note 4 - Convertible Notes Payable	**6 Months Ended**
	Jun. 30, 2024
Notes to Financial Statements	
Convertible Debt [Text Block]	

Note 4: Convertible Notes Payable

On March 8, 2024, the Company issued senior secured convertible promissory notes (the "Convertible Notes") with an aggregate principal amount of $6.0 million, of which, $2.0 million were sold to related parties, including immediate family members and family trusts related to Mark Emalfarb, our President and Chief Executive Officer and a member of our Board of Directors.

The Convertible Notes are senior, secured obligations of the Company and its affiliates, and interest is payable quarterly in cash on the principal amount equal to 8% per annum, and guaranteed by its subsidiary, Dyadic International (USA), Inc. under a subsidiary guarantee for the benefit of the holders of the Convertible Notes (each such holder, a "Holder").

The Convertible Notes mature on March 8, 2027, unless earlier converted or redeemed in accordance with the terms of the Convertible Notes. The Convertible Notes are secured by a first priority lien on substantially all assets of the Company and Dyadic International (USA), Inc.

The Holders may require the Company to redeem all or any part of the Convertible Notes on a redemption date falling on any of the 18, 21, 24, 27, 30, and 33-month anniversaries of the original issue date of the Convertible Notes (any such date, a "Redemption Date") upon not less than 60 calendar days written notice prior to the applicable Redemption Date. The Company may also elect to redeem all or any part of the Convertible Notes on a Redemption Date upon not less than 60 calendar days written notice prior to the applicable Redemption Date.

The Convertible Notes are convertible into shares of the Company's common stock, in whole or in part, at the option of the Holders at any time, based on an initial conversion price of $1.79 per share of common stock. For the three months ended June 30, 2024, $400,000 of the Convertible Notes were converted into 223,463 shares of the Company's common stock.

The Convertible Notes are accounted for in accordance with ASC 470-20, *Debt with Conversion and Other Options* and ASC 815-15, *Derivatives and Hedging*. Under ASC 815, contracts that are both indexed to its own stock and classified in stockholders' equity in its statement of financial position are not considered to be derivative instruments. Based on the Company's analysis, it is determined that the Convertible Notes contain embedded features that are indexed to the Company's own stock and are classified in stockholders' equity in the Company's statement of financial position, but do not meet the requirements for bifurcation and recognition as derivatives, and therefore, do not need to be accounted for separately. Accordingly, the proceeds received from the issuance of the Convertible Notes were recorded as a single liability in accordance with ASC 470 on the Company's consolidated balance sheets.

The Company incurred $176,000 of debt issuance costs associated with the Convertible Notes, which were recorded as a reduction of the Convertible Notes on the consolidated balance sheets. The debt issuance costs are being amortized and recognized as additional interest expense over the expected life of the Convertible Notes using the effective interest method. We determined the expected life of the debt is equal to the three-year term of the Convertible Notes.

As of June 30, 2024, accrued interest on the Convertible Notes to related parties and other third parties were $32,000 and $80,000, respectively, and was recognized as interest expenses in the consolidated statements of operations.

For the three months ended June 30, 2024, $34,844 of interest was paid and debt issuance costs of $23,591 were amortized and recorded in interest expense in the consolidated statements of operations. For the six months ended June 30, 2024, $34,844 of interest was paid and debt issuance costs of $26,716 were amortized and recorded in interest expense in the consolidated statements of operations. As of June 30, 2024, accumulated amortized debt issuance costs are $26,716.

As of June 30, 2024, convertible notes payable consisted of the following:

Holder	Issuance Date	Due Date	Interest Rate	Convertible Note Principal	Principal Repayments	Conversion to Common Stock	Principal Outstanding
Francisco Trust dated 2/28/1996 (1)	03/08/24	03/08/27	8%	$ 1,000,000	$ —	$ —	$ 1,000,000
Bradley Emalfarb (2)	03/08/24	03/08/27	8%	500,000	—	(400,000)	100,000
Bradley Scott Emalfarb Irrevocable Trust (2)	03/08/24	03/08/27	8%	410,000	—		410,000
Emalfarb Descendent Trust (3)	03/08/24	03/08/27	8%	90,000	—	—	90,000
Convertible Notes - Related Party				**$ 2,000,000**	$ —	$ —	**1,600,000**
Unamortized Debt Issuance Costs - Related Party							**(42,559)**
Net Carrying Amount							**$ 1,557,441**
Convertible Notes - Third Party	03/08/24	03/08/27	8%	**$ 4,000,000**	**$ —**	**$ —**	**4,000,000**
Unamortized Debt Issuance Costs - Third Party							**(106,398)**
Net Carrying Amount							**$ 3,893,602**

Notes:
(1) Mr. Thomas Emalfarb, nephew of Mr. Mark A. Emalfarb, our President and Chief Executive Officer, is the Trustee of the Francisco Trust. Mr. Thomas Emalfarb may be deemed to have voting, dispositive and investment power with respect to the shares of common stock held by the Francisco Trust and disclaims any such beneficial ownership other than to the extent of any pecuniary interest he may have therein, directly or indirectly. The amount of accrued interest as of June 30, 2024, is $20,000.
(2) Mark A. Emalfarb, our President and Chief Executive Officer, is the Trustee of the Irrevocable Trust and the brother of Mr. Bradley S. Emalfarb, who is the sole beneficiary of the Irrevocable Trust. Mr. Bradley S. Emalfarb, as sole beneficiary of the Irrevocable Trust, therefore, may be deemed to have voting, dispositive and investment power with respect to the shares of common stock held by the Irrevocable Trust and disclaims any such beneficial ownership other than to the extent of any pecuniary interest he may have therein, directly or indirectly. For the three months ended June 30, 2024, $400,000 of the Convertible Notes held by Mr. Bradley S. Emalfarb were converted into 223,463 shares of the Company's common stock. As of June 30, 2024, the amount of accrued interest for Bradley Emalfarb and Bradley Scott Emalfarb Irrevocable Trust was $2,000 and $8,200, respectively.
(3) Messrs. Thomas Emalfarb, Scott Emalfarb and Michael Emalfarb, nephews of Mr. Mark A. Emalfarb, our President and Chief Executive Officer, are co-trustees of the Descendant Trust and may therefore be deemed to have shared voting, dispositive and investment power over the shares of common stock held by the Descendant Trust. The amount of accrued interest as of June 30, 2024, is $1,800.

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Note 5 - Commitments and Contingencies	**6 Months Ended**
	Jun. 30, 2024
Notes to Financial	

Statements

Commitments and Contingencies Disclosure [Text Block]

Note 5: Commitments and Contingencies

Legal Proceedings

We are not currently involved in any litigation that we believe could have a materially adverse effect in our financial condition or results of operations. From time to time, the Company is subject to legal proceedings, asserted claims and investigations in the ordinary course of business, including commercial claims, employment and other matters, which management considers immaterial, individually and in the aggregate. The Company makes a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The requirement for these provisions is reviewed at least quarterly and adjusted to reflect the impact of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular case. Litigation is inherently unpredictable and costly. Protracted litigation and/or an unfavorable resolution of one or more of proceedings, claims or investigations against the Company could have a material adverse effect on the Company's consolidated financial position, cash flows or results of operations.

VTT Research Contract Extension

On January 31, 2024, the Company entered into a Third Amendment to the commission contract concerning VTT Technical Research Centre of Finland Ltd. ("VTT") to develop Dyadic's C1 fungal expression system for therapeutic protein production. The original contract was entered on June 28, 2019, and subsequently amended by the First Amendment on June 21, 2022, and the Second Amendment on September 9, 2022. Under the terms of the Third Amendment, the contract duration was extended to January 31, 2025, and Dyadic will pay VTT a total of EUR €186,000 to continue developing Dyadic's C1-cell protein production platform for therapeutic protein production, including our C1 host system. Dyadic has the right to terminate the contract with 90 days' notice.

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Note 6 - Share-based Compensation

Notes to Financial Statements

Share-Based Payment Arrangement [Text Block]

	6 Months Ended Jun. 30, 2024

Note 6: Share-Based Compensation

Description of Equity Plans

The 2021 Equity Incentive Award Plan (the "2021 Plan") was adopted by the Company's Board of Directors on April 9, 2021 and approved by the Company's Annual Meeting of Shareholders (the "Annual Meeting") on June 11, 2021. The 2021 Plan serves as a successor to the Company's 2011 Equity Incentive Plan (the "2011 Plan"). Since the adoption of the 2021 Plan, all equity awards were made from the 2021 Plan and no additional awards will be granted under the 2011 Plan. The 2021 Plan provides for the issuance of a variety of share-based compensation awards, including stock options, restricted stock awards, restricted stock unit awards, performance awards, dividend equivalents awards, deferred stock awards, stock payment awards and stock appreciation rights. As of April 16, 2021, the 2021 Plan increased the number of shares available for grant by 3,000,000 in addition to the number of shares remaining available for the grant of new awards under the 2011.

As of June 30, 2024, the Company had 5,830,222 stock options outstanding and 117,925 unvested restricted stock units in addition to 2,040,004 shares of common stock available for grant under the 2021 Plan. As of December 31, 2023, there were 5,469,247 stock options outstanding and 243,044 unvested restricted stock units in addition to 2,773,406 shares of common stock available for grant under the 2021 Plan.

Stock Options

Options are granted to purchase common stock at prices that are equal to the fair value of the common stock on the date the option is granted. Vesting is determined by the Board of Directors at the time of grant. The term of any stock option awards under the Company's 2011 Plan and 2021 Plan is ten years, except for certain options granted to the contractors which are either one or three years.

The grant-date fair value of each option grant is estimated using the Black-Scholes option pricing model and amortized on a straight-line basis over the requisite service period, which is generally the vesting period, for each separately vesting portion of the award as if the award was, in substance, multiple awards. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs, including the following.

Risk-free interest rate. The risk-free interest rate is based on U.S. Treasury rates with securities approximating the expected lives of options at the date of grant.

Expected dividend yield. The expected dividend yield is zero, as the Company has never paid dividends to common shareholders and does not currently anticipate paying any in the foreseeable future.

Expected stock price volatility. The expected stock price volatility was calculated based on the Company's own volatility since the DuPont Transaction in 2015. The Company reviews its volatility assumption on an annual basis and has used the Company's historical volatilities since 2016, as the DuPont Transaction resulted in significant changes in the Company's business and capital structure.

Expected life of option. The expected life of option was based on the contractual term of the option and expected employee exercise and post-vesting employment termination behavior. The Company uses the weighted average vesting period and contractual term of the option as the best estimate of the expected life of a new option, except for the options granted to the CEO (i.e., 5 or 10 years) and certain contractors (i.e., 1 or 3 years).

The assumptions used in the Black-Scholes option pricing model for stock options granted for the six months ended June 30, 2024 are as follows:

Risk-Free interest rate	3.93% - 4.61%
Expected dividend yield	—%
Expected stock price volatility	63.31%
Expected life of options (in years)	5.50-6.25

The following table summarizes the stock option activities for the six months ended June 30, 2024:

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2023	5,469,247	$ 3.08	5.66	$ 322,738
Granted (1)	812,600	1.60		
Exercised	(30,000)	1.36		
Expired (2)	(358,500)	2.10		
Canceled (3)	(63,125)	1.59		
Outstanding at June 30, 2024	5,830,222	$ 2.96	5.83	$ 138,360
Exercisable at June 30, 2024	4,430,623	$ 3.20	4.89	$ 109,383

Notes:

(1) Represents the following options granted:

- Annual share-based compensation awards on January 2, 2024, with an exercise price of $1.59, including: (a) 387,500 stock options granted to executives and key personnel, vesting upon one year anniversary, or annually in equal installments over four years, (b) 352,500 stock options granted to members of the Board of Directors, vesting upon one year anniversary, (c) 17,600 stock options granted to employees, vesting annually in equal installments over four years, and (d)15,000 stock options granted to a consultant, vesting upon one year anniversary.
- One-time awards on April 11, 2024, with an exercise price of $1.84, including 20,000 stock options granted to an executive, vesting annually in equal installments over four years, and 20,000 stock options granted to a member of the Board of Directors, vesting upon one year anniversary.

(2) Represents the following options expired:

(a) 300,000 stock options with an exercise price of $1.87 per share granted to an executive, (b) 25,000 stock options with an exercise price of $1.76 per share granted to a member of the Board of Directors, (c) 7,500 stock options with an exercise price of $5.56 per share granted to a consultant, (d) 25,000 stock options with an exercise price of $4.14 per share granted to a consultant, and (e) 1,000 stock options with an exercise price of $1.55 per share granted to an employee.

(3) Represents the following options canceled:

(a) 50,000 stock options granted to a former Board of Directors, (b) 13,125 stock options granted to the Company's former Chairman of the Board of Directors.

Restricted Stock Units

Restricted stock units (the "RSUs") are granted subject to certain restrictions. Vesting conditions are determined at the discretion of the Board of Directors. The fair market value of RSUs is generally determined based on the closing market price of the stock on the grant date.

The following table summarizes the restricted stock award activity for the six months ended June 30, 2024:

	Shares	Weighted-Average Grant Date Fair Value
Outstanding at December 31, 2023	213,044	$ 1.43
Granted (1)	354,219	1.60
Vested (2)	(437,546)	1.52
Unvested shares forfeited (3)	(11,792)	1.59
Outstanding at June 30, 2024	117,925	$ 1.59

Notes:

(1) On March 13, 2024, the Company granted 212,709 RSUs with immediate vesting, to executives and key personnel in lieu of cash bonuses earned for the year ended 2023. On January 2, 2024, the Company granted 141,510 RSUs, vesting upon one year anniversary of the grant, to the Board of Directors. The fair value of the common stock is the Company's closing stock price on the grant date as reported on the Nasdaq Stock Exchange.

(2) Represents 212,709 RSUs granted to executives and key personnel, 174,837 RSUs granted to the Board of Directors, and 50,000 RSUs granted to a contractor.

(3) Represents the cancellation of RSUs granted to a former member of the Board of Directors.

Compensation Expenses

We recognize all share-based payments to employees and our Board of Directors, as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations, and these charges had no impact on the Company's reported cash flows. Stock-based compensation expense is calculated on the grant date fair values of such awards, and recognized each period based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur. For the three and six months ended June 30, 2024, there were forfeitures of $20,000 and $40,000, respectively.

For performance-based awards, the Company recognizes related stock-based compensation expenses based upon its determination of the potential likelihood of achievement of the specified performance conditions at each reporting date.

Total non-cash share-based compensation expense was allocated among the following expense categories:

	Three Months Ended June 30,	Six Months Ended June 30,

	2024	2023	2024	2023
General and administrative	$ 285,372	$ 323,796	$ 579,406	$ 643,132
Research and development	12,231	10,520	24,675	21,823
Total	$ 297,603	$ 334,316	$ 604,081	$ 664,955

The following table summarizes the Company's non-cash share-based compensation expense allocation between options and restricted stock units:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Share based compensation expense - stock option	$ 243,538	$ 278,373	$ 433,807	$ 554,914
Share based compensation expense - restricted stock units	54,065	55,943	170,274	110,041
Total	$ 297,603	$ 334,316	$ 604,081	$ 664,955

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Note 7 - Shareholders' Equity	6 Months Ended Jun. 30, 2024
Notes to Financial Statements	
Equity [Text Block]	

Note 7: Shareholders' Equity

Issuances of Common Stock

For the six months ended June 30, 2024, there were 666,578 shares of the Company's common stock issued with a weighted average issue price of $1.61 per share, including 223,463 shares from the conversion of the Convertible Notes, 61,793 shares from the vesting of restricted stock units, and 5,569 shares from the exercise of stock options. For the six months ended June 30, 2023, there were 247,961shares of the Company's common stock issued resulting from the vesting of restricted stock units with a weighted average issue price of $1.38 per share.

Treasury Stock

As of June 30, 2024, there were 12,253,502 shares of common stock held in treasury, at a cost of $18.9 million, representing the purchase price on the date the shares were surrendered to the Company.

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Note 8 - Subsequent Events	6 Months Ended Jun. 30, 2024
Notes to Financial Statements	
Subsequent Events [Text Block]	

Note 8: Subsequent Events

For purpose of disclosure in the consolidated financial statements, the Company has evaluated subsequent events through August 13, 2024, the date the consolidated financial statements were available to be issued. Except for items mentioned in the notes, management is not aware of any material events that have occurred after the balance sheet date that would require adjustment to, or disclosure in the accompanying financial statements.

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Insider Trading Arrangements	3 Months Ended Jun. 30, 2024 shares	6 Months Ended Jun. 30, 2024 shares
ecd_TradingArrByIndTable		
Material Terms of Trading Arrangement [Text Block]		

Item 5. Other Information

(a) None.

(b) None.

(c) During the quarter ended June 30, 2024, the following individuals adopted Rule 10b5-1 trading arrangements, which are intended to satisfy the affirmative defense of Rule 10b5-1(c) under the Exchange Act: our President and Chief Executive Officer Mark Emalfarb (adopted on June 4, 2024); our director Jack Kaye (adopted on June 6, 2024); our Vice President of Research and Business Development Ronen Tchelet (adopted on June 7, 2024); and our Chief Financial Officer Ping Wang Rawson (adopted on June 12, 2024). Each trading arrangement includes the potential sale of up to a specified number of shares of our common stock owned by the applicable individual (for Mr. Emalfarb, 1 million; for Mr. Kaye, 292,367; for Mr. Tchelet, 250,000; and for Ms. Rawson, 282,485), and expires on a specified date (for Mr. Emalfarb, December 31, 2026; for Mr. Kaye, June 2, 2026; for Mr. Tchelet, June 10, 2025; and for Ms. Rawson, June 12, 2026), unless earlier terminated in accordance with the provisions of the arrangement.

Except as described above, for the quarter ended June 30, 2024, none of our directors or officers (as defined in Section 16 of the Exchange Act) adopted or terminated a "Rule 10b5-1 trading arrangement" or a "non-Rule 10b5-1 trading arrangement" (each as defined in Item 408(a) and (c), respectively, of Regulation S-K).

Rule 10b5-1 Arrangement Terminated [Flag]	false	
Non-Rule 10b5-1 Arrangement Terminated [Flag]	false	
Non-Rule 10b5-1 Arrangement Adopted [Flag]	false	
Mark Emalfarb [Member]		
ecd_TradingArrByIndTable		
Trading Arrangement, Individual Title	President and Chief Executive Officer	
Trading Arrangement, Individual Name	Mark Emalfarb	
Rule 10b5-1 Arrangement Adopted [Flag]	true	
Trading Arrangement Adoption Date	June 4, 2024	
Trading Arrangement, Securities Aggregate Available Amount	1,000,000	1,000,000
Jack Kaye [Member]		
ecd_TradingArrByIndTable		
Trading Arrangement, Individual Title	director	
Trading Arrangement, Individual Name	Jack Kaye	
Rule 10b5-1 Arrangement Adopted [Flag]	true	
Trading Arrangement Adoption Date	June 6, 2024	
Trading Arrangement, Securities Aggregate Available Amount	292,367	292,367
Ronen Tchelet [Member]		
ecd_TradingArrByIndTable		
Trading Arrangement, Individual Title	Vice President of Research and Business Development	
Trading Arrangement, Individual Name	Ronen Tchelet	
Rule 10b5-1 Arrangement Adopted [Flag]	true	
Trading Arrangement Adoption Date	June 7, 2024	
Trading Arrangement, Securities Aggregate Available Amount	250,000	250,000

Ping Wang Rawson [Member]		
ecd_TradingArrByIndTable		
Trading Arrangement, Individual Title	Chief Financial Officer	
Trading Arrangement, Individual Name	Ping Wang Rawson	
Rule 10b5-1 Arrangement Adopted [Flag]	true	
Trading Arrangement Adoption Date	June 12, 2024	
Trading Arrangement, Securities Aggregate Available Amount	282,485	282,485

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Significant Accounting Policies (Policies)	6 Months Ended Jun. 30, 2024
Accounting Policies [Abstract]	
Liquidity and Capital Resources, Policy [Policy Text Block]	***Liquidity and Capital Resources***

The Company expects to incur losses and have negative net cash flows from operating activities as it continues developing its microbial platforms and related products, and as it expands its pipelines and engages in further research and development activities for internal products as well as for its third-party collaborators and licensees. The success of the Company depends on its ability to develop its technologies and products to the point of regulatory approval and subsequent revenue generation or through the sublicensing of the Company's technologies and products, and its ability to raise capital to finance these developmental efforts.

On March 8, 2024, the Company issued an aggregate principal amount of $6.0 million of its 8.0% Senior Secured Convertible Promissory Notes due March 8, 2027 (the "Convertible Notes") in a private placement in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended (the "Securities Act"). The purchasers of the Convertible Notes include immediate family members and family trusts related to Mark Emalfarb, our President and Chief Executive Officer and a member of our Board of Directors, including The Francisco Trust, an existing holder of more than 5% of the Company's outstanding common stock, (collectively, the "Purchasers"). The net proceeds from the sale of the Convertible Notes, after deducting offering expenses, is $5,824,000. The Company intends to use the net proceeds from the offering of the Convertible Notes for working capital and general corporate purposes.

The Convertible Notes are senior, secured obligations of Dyadic and its affiliates, and interest is payable quarterly in cash on the principal amount equal to 8% per annum. The Convertible Notes will mature on March 8, 2027 (the "Maturity Date"), unless earlier converted, repurchased, or redeemed in accordance with the terms of the Convertible Notes.

The Convertible Notes can be converted into shares of Dyadic's Class A common stock (the "Common Stock"), at the option of the holders of the Convertible Notes (the "Noteholders") at any time prior to the Maturity Date. The conversion price is $1.79 per share of the Common Stock, which is equal to 125% of the trailing 30-day VWAP of the Common Stock ending on the trading day immediately preceding the date of the securities purchase agreement. As of June 30, 2024, $400,000 of the Convertible Notes were converted into 223.463 shares of Common Stock. For more information regarding the Convertible Notes, including the covenants related thereto see Note 4 to the Consolidated Financial Statements.

This private placement funding will support our near-term revenue growth and accelerate our strategic objective of commercialization opportunities for pharmaceutical and non-pharmaceutical applications.

The Company expects its existing cash and cash equivalents and cash raised from the Convertible Notes, investments in debt securities, and operating cash flows will be sufficient to meet its operational, business, and other liquidity requirements for at least the next twelve (12) months from the date of issuance of the financial statements contained in this Quarterly Report. However, the Company has based this estimate on assumptions that may prove to be wrong, and its operating plan may change as a result of many factors currently unknown to it. In the event our financing needs are not able to be met by our existing cash, cash equivalents and investments, we would seek to raise additional capital through strategic financial opportunities that could include, but are not limited to, future public or private equity offerings, collaboration agreements, and/or other means. Any amounts raised may be used for the further development and commercialization of product candidates, and for other working capital purposes. There is no guarantee that any of these strategic or financing opportunities will be executed or realized on favorable terms, if at all, and some could be dilutive to existing shareholders.

Basis of Accounting, Policy [Policy Text Block]

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements, including the accounts of the Company and its wholly owned subsidiaries, have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") as found in the Accounting Standards Codification ("ASC"), Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB") and applicable rules and regulations of the Securities and Exchange Commission ("SEC") regarding interim financial reporting. Certain information and footnote disclosures normally included in consolidated financial statements have been condensed or omitted pursuant to such rules and regulations. All significant intra-entity transactions and balances have been eliminated in consolidation. The information included in this Quarterly Report should be read in conjunction with the audited consolidated financial statements and footnotes as of and for the year ended December 31, 2023, included in our Annual Report.

In the opinion of management, the accompanying unaudited interim consolidated financial statements reflect all adjustments, which are of a normal recurring nature, considered necessary for a fair presentation of all periods presented. The results of the Company's operations for any interim periods are not necessarily indicative of the results of operations for any other interim period or for a full fiscal year.

The Company conducts business in one operating segment, which is identified by the Company based on how resources are allocated, and operating decisions are made. Management evaluates performance and allocates resources based on the Company as a whole.

Use of Estimates, Policy [Policy Text Block]

Use of Estimates

The preparation of these consolidated financial statements in accordance with GAAP requires management to make estimates and judgments that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our consolidated financial statements and the reported amounts of revenues and expenses during the applicable period. Estimates inherent in the preparation of these consolidated financial statements include, but are not limited to, estimates related to revenue recognition, accrued expenses, stock-based compensation expense, and income taxes. The Company bases its estimates on historical experience and other market specific or other relevant assumptions it believes to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts, and experience. Actual results may differ from these estimates under different assumptions or conditions. Such differences could be material to the consolidated financial statements.

Concentration Risk, Credit Risk, Policy [Policy Text Block]

Concentrations and Credit Risk

The Company's financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash and cash equivalents, investment securities, and accounts receivable. At times, the Company has cash, cash equivalents, and investment securities at financial institutions exceeding the Federal Depository Insurance Company ("FDIC") and the Securities Investor Protection Corporation ("SIPC") insured limit on domestic currency and the Netherlands' FDIC counterpart for foreign currency. The Company currently deals with four reputable financial institutions and has not experienced any losses in those accounts.

For the three months ended June 30, 2024 and 2023, the Company's revenue was generated from ten and eight customers, respectively. For the six months ended June 30, 2024 and 2023, the Company's revenue was generated from thirteen and eight customers, respectively. Significant customers are those that account for greater than 10% of the Company's revenues. For the three months ended June 30, 2024 and 2023, four and three significant customers accounted for $285,000 or 73.7% and $525,000 or 66.2% of research and development revenue, respectively. For the six months ended June 30, 2024 and 2023, five and three significant customers accounted for 506,000 or 70.3% and $1,152,000 or 66.7% of research and development revenue, respectively.

As of June 30, 2024 and December 31, 2023, accounts receivable was from six and thirteen customers, of which, three and two customers accounted for $191,000 or 76.3% and $1,150,000 or 45.2% of total accounts receivable, respectively. The loss of business from one or a combination of the Company's customers could adversely affect its operations.

The Company conducts operations in the Netherlands through its foreign subsidiary and generates a portion of its revenues from customers that are located outside of the United States. For the three months ended June 30, 2024 and 2023, the Company had four and two customers outside of the United States (i.e., European customers) that accounted for $106,000 or 27.5% and $98,000 or 12.4% of research and development revenue, respectively. For the six months ended June 30, 2024 and 2023, the Company had seven and two customers outside of the United States (i.e., European customers) that accounted for $304,000 or 42.2% and $187,000 or 10.8% of research and development revenue, respectively.

As of June 30, 2024 and December 31, 2023, the Company had three and six customers outside of the United States (i.e., European customers) that accounted for $108,000 or 43.3% and $213,000 or 45.6% of accounts receivable, respectively.

The Company uses several contract research organizations ("CROs") to conduct its research projects. For the three months ended June 30, 2024 and 2023, two and three CROs accounted for $598,000 or 96.5% and $1,586,000 or 99.4% of total research services we purchased, respectively. For the six months ended June 30, 2024 and 2023, two and three CROs accounted for $957,000 or 90.2% and $2,662,000 or 97.6% of total research services we purchased, respectively. As of June 30, 2024 and December 31, 2023, two and three CROs accounted for $195,000 or 35.9% and $620,000 or 94.4% of accounts payable, respectively. The loss of one CRO or a combination of the Company's CROs could adversely affect its operations.

Cash and Cash Equivalents, Policy [Policy Text Block]

Cash and Cash Equivalents

We treat highly liquid investments with original maturities of three months or less when purchased as cash equivalents, including money market funds, which are unrestricted for withdrawal or use.

Investment, Policy [Policy Text Block]

Investment Securities

The Company's investment policy requires investment securities to be investment grade and held to maturity with the primary objective to maintain a high degree of liquidity while maximizing yield. The Company invests excess cash balances in short-term and long-term investment grade securities. Short-term investment securities mature within twelve (12) months or less, and long-term investment securities mature over twelve (12) months from the applicable reporting date. Management determines the appropriate classification of each investment at the time of purchase and reevaluates the classifications at each balance sheet date.

The Company classifies its investments in debt securities as held-to-maturity. Held-to-maturity securities are those securities that the Company has the ability and intent to hold until maturity. Held-to-maturity securities are recorded at amortized cost, net of allowance for credit losses if applicable, and adjusted for the amortization or accretion of premiums or discounts. Premiums and discounts are amortized over the life of the related held-to-maturity security. When a debt security is purchased at a premium, both the face value of the debt and premium amount are reflected as investing outflow.

When evaluating an investment for other-than-temporary impairment, the Company reviews factors such as the length of time and extent to which fair value has been below its cost basis, the financial condition of the issuer and any changes thereto, changes in market interest rates, and whether it is more likely than not the Company will be required to sell the investment before recovery of the investment's cost basis. The Company measures expected credit losses on held to maturity debt securities on an individual security basis. The estimate of expected credit losses considers historical credit information from external sources. The impairment of the investment that is related to the credit loss, if any, is expensed in the period in which the event or change occurred.

The Company classifies its investments in money market funds as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets. As of June 30, 2024 and

December 31, 2023, all of our money market funds were invested in U.S. Government money market funds, for which the risk of loss is minimal.

As of June 30, 2024, and December 31, 2023, the Company did not have any investment securities classified as trading.

Accounts Receivable [Policy Text Block]

Accounts Receivable

Accounts receivable consist of billed receivables currently due from customers and unbilled receivables. Unbilled receivables represent the excess of contract revenue (or amounts reimbursable under contracts) over billings to date. Such amounts become billable in accordance with the contract terms, which usually consider the passage of time, achievement of certain milestones or completion of the project.

Accounts receivable are stated net of an allowance for credit losses, if deemed necessary based on the Company's evaluation of collectability and potential credit losses. Management assesses the collectability of its accounts receivable using the specific identification of account balances and considers the credit quality and financial condition of its significant customers, historical information regarding credit losses and the Company's evaluation of current and expected future economic conditions and changes in our customer collection trends. If necessary, an allowance for credit losses is recorded against accounts receivable such that the carrying value of accounts receivable reflects the net amount expected to be collected. Accounts receivable balances are written off against the allowance for credit losses when the potential for collectability is considered remote. Substantially all of our accounts receivable were current and include unbilled amounts that will be billed and collected over the next twelve (12) months. Management determined that no allowance for credit losses was required as of June 30, 2024, and December 31, 2023.

Accounts receivable consist of the following:

	June 30, 2024 (Unaudited)	December 31, 2023 (Audited)
Billed receivable	$ 188,084	$ 410,617
Unbilled receivable	61,722	55,542
	$ 249,806	$ 466,159

Accounts Payable, Policy [Policy Text Block]

Accounts Payable

Accounts payable consist of the following:

	June 30, 2024 (Unaudited)	December 31, 2023 (Audited)
Research and development expenses	$ 204,354	$ 575,436
Legal expenses	158,228	1,957
Other	69,939	79,052

Accrued Expenses, Policy [Policy Text Block]

Accrued Expenses

Accrued expenses consist of the following:

	June 30, 2024 (Unaudited)	December 31, 2023 (Audited)
Employee wages and benefits	$ 330,181	$ 561,720
Research and development expenses	499,056	274,080
Legal expenses	41,360	210,004
Other	—	11,360
	$ 870,597	$ 1,057,164

Deferred Charges, Policy [Policy Text Block]

Deferred Financing Costs

Deferred financing costs represent costs incurred in connection with the issuance of debt instruments and equity financings. Deferred financing costs related to the issuance of debt are amortized over the term of the financing instrument using the effective interest method and are presented in the consolidated balance sheets as an offset against the related debt. Offering costs from equity financings are netted against the gross proceeds received from the equity financings. See Note 4 for the amortization amount.

Research and Development Expense, Policy [Policy Text Block]

Research and Development Costs

Research and development ("R&D") costs are expensed as incurred. R&D costs are for the Company's internally funded pharmaceutical programs and other governmental and commercial projects.

Research and development costs consist of personnel-related costs, facilities, research-related overhead, services from independent contract research organizations, and other external costs. Research and development costs, including related party, for the three and six months ended June 30, 2024 and 2023 were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024 (Unaudited)	2023 (Unaudited)	2024 (Unaudited)	2023 (Unaudited)
Outside contracted services	$ 395,188	$ 748,139	$ 783,434	$ 1,391,186
Personnel related costs	106,889	147,414	213,216	299,608
Facilities, overhead and other	13,552	21,999	41,702	37,324

Foreign Currency Transactions and Translations Policy [Policy Text Block]

Foreign Currency Transaction Gain or Loss

The Company and its foreign subsidiary use the U.S. dollar as its functional currency, and initially measure the foreign currency denominated assets and liabilities at the transaction date. Monetary assets and liabilities are then re-measured at exchange rates in effect at the end of each period, and property and non-monetary assets and liabilities are carried at historical rates.

Fair Value Measurement, Policy [Policy Text Block]

Fair Value Measurements

The Company applies fair value accounting for certain financial instruments that are recognized or disclosed at fair value in the financial statements. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

- *Level 1* – Quoted prices in active markets for identical assets or liabilities.
- *Level 2* – Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- *Level 3* – Inputs that are generally unobservable and typically reflect management's estimate of assumptions that market participants would use in pricing the asset or liability.

The Company's financial instruments included cash and cash equivalents, investment in debt securities, accounts receivable, accounts payable and accrued expenses, accrued payroll and related liabilities, deferred research and development obligations, deposits, and the Company's 8% Senior Secured Convertible Promissory Notes (the "Convertible Notes"), due March 2027. The carrying amount of these financial instruments, except for investment in debt securities and Convertible Notes, approximates fair value due to the short-term maturities of these instruments. The Company's short-term and long-term investments in debt securities are recorded at amortized cost, and their estimated fair value amounts are provided by the third-party broker service for disclosure purposes. See Note 4 for additional information related to the Convertible Notes.

Income Tax, Policy [Policy Text Block]

Income Taxes

For the six months ended June 30, 2024, there was no provision for income taxes or unrecognized tax benefits recorded. As of June 30, 2024 and December 31, 2023, deferred tax assets were $17.8 million and $16.4 million, respectively. Due to the Company's history of operating losses and the uncertainty regarding our ability to generate taxable income in the future, the Company has established a 100% valuation allowance against deferred tax assets as of June 30, 2024 and December 31, 2023.

Share-Based Payment Arrangement [Policy Text Block]

Stock-Based Compensation

We recognize all share-based payments to employees, consultants, and our Board of Directors (the "Board"), as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations based on the grant date fair values of such payments. Stock-based compensation expense recognized each period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur.

For performance-based awards, the Company recognizes related stock-based compensation expenses based upon its determination of the potential likelihood of achievement of the specified performance conditions at each reporting date.

Earnings Per Share, Policy [Policy Text Block]

Net Loss Per Share

Basic net loss per share is computed by dividing net loss available to common shareholders by the weighted average number of common stock shares outstanding during the reporting period. Diluted net loss per share adjusts the weighted average number of common stock shares outstanding for the potential dilution that could occur if common stock equivalents, such as stock options were exercised and converted into common stock, calculated by applying the treasury stock method.

For the three and six months ended June 30, 2024, a total of 5,948,147 shares of potentially dilutive securities, including 117,925 shares of unvested restrict stock units and options to purchase 5,830,222 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive. For the three and six months ended June 30, 2023, a total of 5,619,491 shares of potentially dilutive securities, including 163,044 shares of unvested restrict stock units and options to purchase 5,456,447 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive

New Accounting Pronouncements, Policy [Policy Text Block]

Recent Accounting Pronouncements Not Adopted as of June 30, 2024

In December 2023, the FASB issued Accounting Standards Update 2023-09 – Income Taxes (Topic ASC 740) Income Taxes. The ASU improves the transparency of income tax disclosures by requiring (1) consistent categories and greater disaggregation of information in the rate reconciliation and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. The amendments in ASU 2023-09 will become effective for annual periods beginning January 1, 2025. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. We do not expect that this guidance will have a material impact on our financial position and results of operations.

In November 2023, the FASB issued Accounting Standards Update 2023-07 – Segment Reporting (Topic ASC 280) Improvements to Reportable Segment Disclosures. The ASU improves reportable segment disclosure requirements, primarily through enhanced disclosure about significant segment expenses. The enhancements under this update require disclosure of significant segment expenses that are regularly provided to the Chief Operating Decision Maker ("CODM") and included within each reported measure of segment profit or loss, require disclosure of *other segment items* by reportable segment and a description of the composition of *other segment items*, require annual disclosures under ASC 280 to be provided in interim periods, clarify use of more than one measure of segment profit or loss by the CODM, require that the title of the CODM be disclosed with an explanation of how the CODM uses the reported measures of segment profit or loss to make decisions, and require that entities with a single reportable segment provide all disclosures required by this update and required under ASC 280. ASU 2023-07 is effective for public business entities for fiscal years beginning January 1, 2024, and interim periods beginning January 1, 2025, with early adoption permitted. We do not expect that this guidance will have a material impact on our financial position and results of operations.

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Note 1 - Organization and Summary of Significant Accounting Policies (Tables)

6 Months Ended

Jun. 30, 2024

Notes Tables

Schedule of Accounts, Notes, Loans and Financing Receivable [Table Text Block]

	June 30, 2024 (Unaudited)	December 31, 2023 (Audited)
Billed receivable	$ 188,084	$ 410,617
Unbilled receivable	61,722	55,542
	$ 249,806	$ 466,159

Schedule of Accounts Payable and Accrued Liabilities [Table Text Block]

	June 30, 2024 (Unaudited)	December 31, 2023 (Audited)
Research and development expenses	$ 204,354	$ 575,436
Legal expenses	158,228	1,957
Other	69,939	79,052

Schedule of Accrued Liabilities [Table Text Block]

	June 30, 2024 (Unaudited)	December 31, 2023 (Audited)
Employee wages and benefits	$ 330,181	$ 561,720
Research and development expenses	499,056	274,080
Legal expenses	41,360	210,004
Other	—	11,360
	$ 870,597	$ 1,057,164

Schedule of Research and Development Costs [Table Text Block]

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024 (Unaudited)	2023 (Unaudited)	2024 (Unaudited)	2023 (Unaudited)
Outside contracted services	$ 395,188	$ 748,139	$ 783,434	$ 1,391,186
Personnel related costs	106,889	147,414	213,216	299,608
Facilities, overhead and other	13,552	21,999	41,702	37,324

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Note 2 - Cash, Cash Equivalents, and Investments (Tables)

6 Months Ended

Jun. 30, 2024

Notes Tables

Cash, Cash Equivalents and Investments [Table Text Block]

	June 30, 2024 (Unaudited)					
	Level (1)	Fair Value	Allowance for Credit Losses	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Adjusted Cost
Cash and Cash Equivalents						
Cash		$ 683,233	$ —	$ —	$ —	$ 683,233
Money Market Funds (2)	1	5,450,165	—	—	—	5,450,165
Subtotal		6,133,398	—	—	—	6,133,398
Short-Term Investment Securities (3)						
Corporate Bonds (4)(5)	2	3,962,295	—	—	(2,222)	3,964,517
Total		$10,095,693	$ —	$ —	$ (2,222)	$10,097,915

	December 31, 2023 (Audited)					
	Level (1)	Fair Value	Allowance for Credit Losses	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Adjusted Cost
Cash and Cash Equivalents						
Cash		$ 25,775	$ —	$ —	$ —	$ 25,775
Money Market Funds (2)	1	6,489,253	—	—	—	6,489,253
Subtotal		6,515,028	—	—	—	6,515,028
Short-Term Investment Securities (3)						
Corporate Bonds (4)(5)	2	748,105	—	—	(185)	748,290
Total		$ 7,263,133	$ —	$ —	$ (185)	$ 7,263,318

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Note 4 - Convertible Notes Payable (Tables)

6 Months Ended

Jun. 30, 2024

Notes Tables

Convertible Debt [Table Text Block]

Holder	Issuance Date	Due Date	Interest Rate	Convertible Note Principal	Principal Repayments	Conversion to Common Stock	Principal Outstanding
Francisco Trust dated 2/28/1996 (1)	03/08/24	03/08/27	8%	$ 1,000,000	$ —	$ —	$ 1,000,000
Bradley Emalfarb (2)	03/08/24	03/08/27	8%	500,000	—	(400,000)	100,000
Bradley Scott Emalfarb Irrevocable Trust (2)	03/08/24	03/08/27	8%	410,000	—		410,000
Emalfarb Descendent Trust (3)	03/08/24	03/08/27	8%	90,000	—	—	90,000
Convertible Notes - Related Party				**$ 2,000,000**	$ —	$ —	**1,600,000**
Unamortized Debt Issuance Costs - Related Party							**(42,559)**
Net Carrying Amount							**$ 1,557,441**
Convertible Notes - Third Party	03/08/24	03/08/27	8%	**$ 4,000,000**	**$ —**	**$ —**	**4,000,000**
Unamortized Debt Issuance Costs - Third Party							**(106,398)**
Net Carrying Amount							**$ 3,893,602**

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Note 6 - Share-based Compensation (Tables)

6 Months Ended

Jun. 30, 2024

Notes Tables

Schedule of Share-Based Payment Award, Stock Options, Valuation Assumptions [Table Text Block]

Risk-Free interest rate	3.93% - 4.61%
Expected dividend yield	—%
Expected stock price volatility	63.31%
Expected life of options (in years)	5.50-6.25

Share-Based Payment Arrangement, Option, Activity [Table Text Block]

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2023	5,469,247	$ 3.08	5.66	$ 322,738
Granted (1)	812,600	1.60		
Exercised	(30,000)	1.36		
Expired (2)	(358,500)	2.10		
Canceled (3)	(63,125)	1.59		
Outstanding at June 30, 2024	5,830,222	$ 2.96	5.83	$ 138,360
Exercisable at June 30, 2024	4,430,623	$ 3.20	4.89	$ 109,383

Share-Based Payment Arrangement, Restricted Stock and Restricted Stock Unit, Activity [Table Text Block]

	Shares	Weighted-Average Grant Date Fair Value
Outstanding at December 31, 2023	213,044	$ 1.43
Granted (1)	354,219	1.60
Vested (2)	(437,546)	1.52
Unvested shares forfeited (3)	(11,792)	1.59
Outstanding at June 30, 2024	117,925	$ 1.59

	Three Months Ended	Six Months Ended

Share-Based Payment Arrangement, Activity [Table Text Block]

	June 30,		June 30,	
	2024	2023	2024	2023
General and administrative	$ 285,372	$ 323,796	$ 579,406	$ 643,132
Research and development	12,231	10,520	24,675	21,823
Total	$ 297,603	$ 334,316	$ 604,081	$ 664,955

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Share based compensation expense - stock option	$ 243,538	$ 278,373	$ 433,807	$ 554,914
Share based compensation expense - restricted stock units	54,065	55,943	170,274	110,041
Total	$ 297,603	$ 334,316	$ 604,081	$ 664,955

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Note 1 - Organization and Summary of Significant Accounting Policies (Details Textual)	3 Months Ended		6 Months Ended		12 Months Ended
	Mar. 08, 2024 USD ($) $ / shares	Jun. 30, 2024 USD ($) shares	Jun. 30, 2023 USD ($) shares	Jun. 30, 2024 USD ($) shares	Jun. 30, 2023 USD ($) shares	Dec. 31, 2023 USD ($)
Debt Conversion, Original Debt, Amount				$ 400,000	$ 0	
Stock Issued During Period, Shares, Conversion of Convertible Securities (in shares) | shares				223,463		
Number of Operating Segments				1		
Revenue from Contract with Customer, Excluding Assessed Tax		$ 385,896	$ 837,159	$ 720,513	$ 1,815,211	
Accounts Payable, Current		432,521		432,521		$ 656,445
Accounts Receivable, Allowance for Credit Loss		0		0		0
Deferred Tax Assets, Net		$ 17,800,000		$ 17,800,000		$ 16,400,000
Deferred Tax Assets, Valuation Allowance Coverage, Percent				100.00%		100.00%
Share-Based Payment Arrangement [Member]						
Antidilutive Securities Excluded from Computation of Earnings Per Share, Amount (in shares) | shares		5,948,147	5,619,491	5,948,147	5,619,491	
Restricted Stock Units (RSUs) [Member]						
Antidilutive Securities Excluded from Computation of Earnings Per Share, Amount (in shares) | shares		117,925	163,044	117,925	163,044	
Share-Based Payment Arrangement, Option [Member]						
Antidilutive Securities Excluded from Computation of Earnings Per Share, Amount (in shares) | shares		5,830,222	5,456,447	5,830,222	5,456,447	
Customer Concentration Risk [Member] | Non-US [Member]						
Concentration Risk, Number of Customers				7	2	
Revenue from Contract with Customer, Excluding Assessed Tax				$ 304,000		
Customer Concentration Risk [Member] | Revenue Benchmark [Member]						
Concentration Risk, Number of Customers		10	8	13	8	
Customer Concentration Risk [Member] | Revenue Benchmark [Member] | Non-US [Member]						
Revenue from Contract with Customer, Excluding Assessed Tax					$ 187,000	
Concentration Risk, Percentage				42.20%	10.80%	
Customer Concentration Risk [Member] | Revenue Benchmark [Member] | Three Significant Customers [Member]						
Concentration Risk, Significant Customers		4	3		3	
Revenue from Contract with Customer, Excluding Assessed Tax			$ 525,000		$ 1,152,000	
Concentration Risk, Percentage			66.20%		66.70%	
Customer Concentration Risk [Member] | Revenue Benchmark [Member] | Four Significant Customers [Member]						
Revenue from Contract with Customer, Excluding Assessed Tax		$ 285,000				
Concentration Risk, Percentage		73.70%				
Customer Concentration Risk [Member] | Revenue Benchmark [Member] | Five Significant Customers [Member]						
Concentration Risk, Significant Customers				5		
Revenue from Contract with Customer, Excluding Assessed Tax				$ 506,000		
Concentration Risk, Percentage				70.30%		
Customer Concentration Risk [Member] | Accounts Receivable [Member]						
Concentration Risk, Number of Customers				3		13
Concentration Risk, Significant Customers				6		2
Customer Concentration Risk [Member] | Accounts Receivable [Member] | Non-US [Member]						
Concentration Risk, Number of Customers		4	2	3		6
Revenue from Contract with Customer, Excluding Assessed Tax		$ 106,000	$ 98,000			
Concentration Risk, Percentage		27.50%	12.40%	43.30%		45.60%
Accounts Receivable, after Allowance for Credit Loss		$ 108,000		$ 108,000		$ 213,000
Customer Concentration Risk [Member] | Accounts Receivable [Member] | Three Significant Customers [Member]						
Revenue from Contract with Customer, Excluding Assessed Tax				$ 191,000		
Concentration Risk, Percentage				76.30%		
Customer Concentration Risk [Member] | Accounts Receivable [Member] | Two Significant Customers [Member]						
Revenue from Contract with Customer, Excluding Assessed Tax						$ 1,150,000
Concentration Risk, Percentage						45.20%
Supplier Concentration Risk [Member] | Contract Research Organizations [Member] | Two CROs [Member]						
Concentration Risk, Percentage		96.50%		90.20%		
Concentration Risk, Number of Suppliers		2		2		
Research Services Purchased		$ 598,000		$ 957,000		
Supplier Concentration Risk [Member] | Contract Research Organizations [Member] | Three CROs [Member]						
Concentration Risk, Percentage			99.40%		97.60%	
Concentration Risk, Number of Suppliers			3		3	
Research Services Purchased			$ 1,586,000		$ 2,662,000	
Supplier Concentration Risk [Member] | Accounts Payable [Member] | Two CROs [Member]						
Concentration Risk, Percentage				35.90%		
Concentration Risk, Number of Suppliers				2		
Accounts Payable, Current		195,000		$ 195,000		
Supplier Concentration Risk [Member] | Accounts Payable [Member] | Three CROs [Member]						
Concentration Risk, Percentage						94.40%
Concentration Risk, Number of Suppliers						3
Accounts Payable						$ 620,000
Conversion Of Convertible Notes Into Common Stock [Member]						
Debt Conversion, Original Debt, Amount		$ 400,000		$ 400,000		
Senior Secured 2024 Notes [Member]						
Debt Instrument, Face Amount	$ 6,000,000					
Debt Instrument, Interest Rate, Stated Percentage	8.00%	8.00%		8.00%		
Proceeds from Issuance of Senior Long-Term Debt	$ 5,824,000					
Debt Instrument, Convertible, Conversion Price (in dollars per share) | $ / shares	$ 1.79					
Debt Instrument, Convertible, Threshold Percentage of Stock Price Trigger	125.00%					
Stock Issued During Period, Shares, Conversion of Convertible Securities (in shares) | shares		223,463		223.463		

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Note 1 - Organization and Summary of Significant Accounting Policies -	Jun. 30, 2024	Dec. 31, 2023

Accounts Receivable (Details) - USD ($)		
Accounts receivable	$ 249,806	$ 466,159
Billed Revenues [Member]		
Accounts receivable	188,084	410,617
Unbilled Revenues [Member]		
Accounts receivable	$ 61,722	$ 55,542

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Note 1 - Organization and Summary of Significant Accounting Policies - Accounts Payable (Details) - USD ($)	Jun. 30, 2024	Dec. 31, 2023
Research and development expenses	$ 204,354	$ 575,436
Legal expenses	158,228	1,957
Other	69,939	79,052
Accounts Payable, Current	$ 432,521	$ 656,445

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Note 1 - Organization and Summary of Significant Accounting Policies - Accrued Expenses (Details) - USD ($)	Jun. 30, 2024	Dec. 31, 2023
Employee wages and benefits	$ 330,181	$ 561,720
Research and development expenses	499,056	274,080
Legal expenses	41,360	210,004
Other	0	11,360
Accrued Liabilities, Current	$ 870,597	$ 1,057,164

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Note 1 - Organization and Summary of Significant Accounting Policies - Research and Development Costs (Details) - USD ($) $ in Thousands	3 Months Ended		6 Months Ended	
	Jun. 30, 2024	Jun. 30, 2023	Jun. 30, 2024	Jun. 30, 2023
Outside contracted services	$ 395,188	$ 748,139	$ 783,434	$ 1,391,186
Personnel related costs	106,889	147,414	213,216	299,608
Facilities, overhead and other	13,552	21,999	41,702	37,324
Research And Development Expense, Including Related Party	$ 515,629	$ 917,552	$ 1,038,352	$ 1,728,118

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Note 2 - Cash, Cash Equivalents, and Investments (Details Textual) - USD ($)	3 Months Ended		6 Months Ended		12 Months Ended
	Jun. 30, 2024	Jun. 30, 2023	Jun. 30, 2024	Jun. 30, 2023	Dec. 31, 2023
Debt Securities, Held-to-maturity, Securities Purchased, Discount	$ 31,357	$ 17,601	$ 61,472	$ 32,834	
Corporate Debt Securities [Member]					
Debt Securities, Held-to-maturity, Securities Purchased, Discount					$ 39,012

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Note 2 - Cash, Cash Equivalents, and Investments - Major Security Type (Details) - USD ($)		Jun. 30, 2024	Dec. 31, 2023
Cash and cash equivalent, fair value		$ 6,133,398	$ 6,515,028
Cash, adjusted cost		683,233	25,775
Money Market Funds, adjusted cost	[1]	5,450,165	6,489,253
Cash and cash equivalents, adjusted cost		6,133,398	6,515,028
Corporate Bonds, allowance for credit loss		0	0
Corporate Bonds, gross unrealized holding gains		0	0
Corporate Bonds, gross unrealized holding losses		(2,222)	(185)
Total, fair value		10,095,693	7,263,133
Total, adjusted		10,097,915	7,263,318
Cash [Member]			
Cash and cash equivalent, fair value		683,233	25,775
Money Market Funds [Member] | Fair Value, Inputs, Level 1 [Member]			
Cash and cash equivalent, fair value	[1]	5,450,165	6,489,253
Short-term Corporate Bonds [Member]			
Corporate Bonds, adjusted cost	[2],[3]	3,964,517	748,290
Short-term Corporate Bonds [Member] | Fair Value, Inputs, Level 2 [Member]			
Corporate Bonds, fair value	[2],[3]	3,962,295	748,105
Corporate Bonds, allowance for credit loss	[2],[3]	0	0
Corporate Bonds, gross unrealized holding gains	[2],[3]	0	0
Corporate Bonds, gross unrealized holding losses	[2],[3]	$ (2,222)	$ (185)

[1] All our money market funds were invested in U.S. Government money market funds.

[2] For the three months ended June 30, 2024 and 2023, the Company received discounts of $31,357 and $17,601 to purchase held-to-maturity investment securities, respectively. For the six months ended June 30, 2024 and 2023, the Company received discounts of $61,472 and $32,834 to purchase held-to-maturity investment securities, respectively. For the year ended December 31, 2023, the Company received discounts of $39,012 to purchase held-to-maturity investment securities.

[3] The Company considers the declines in market value of its investment portfolio to be temporary in nature. As of June 30, 2024 and December 31, 2023, the Company did not consider any of its investments to be other-than-temporarily impaired and no allowance for credit losses was recorded.

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Note 3 - Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies (Details Textual) - USD ($)	3 Months Ended					6 Months Ended		12 Months Ended		
	Jul. 01, 2024	Oct. 05, 2023	Jun. 30, 2024	Mar. 31, 2024	Jun. 30, 2023	Jun. 30, 2024	Jun. 30, 2023	Dec. 31, 2023	Jun. 27, 2024	Dec. 01, 2020
Revenue from Contract with Customer, Excluding Assessed Tax			$ 385,896		$ 837,159	$ 720,513	$ 1,815,211			
Alphazyme [Member]										
Proceeds from Sale, Maturity and Collection of Investments				$ 61,977				$ 1,300,000		
Alphazyme [Member]										
Ownership Percentage										1.99%
Research and Development [Member]										
Revenue from Contract with Customer, Excluding Assessed Tax			385,896		793,042	720,513	1,726,976			
Proliant Agreement [Member]										

Initial Up Front Payment							$ 500,000
Second Payment Upon Completion Transfer							500,000
Final Payment Upon Meeting Certain Productivity Threshold							$ 500,000
Revenue from Contract with Customer, Excluding Assessed Tax		0		0			
Proliant Agreement [Member] | Subsequent Event [Member]							
Non-refundable Upfront Payment, Received	$ 500,000						
Inzymes Agreement APS [Member]							
Non-refundable Upfront Payment, Received		$ 600,000					
Revenue from Contract with Customer, Excluding Assessed Tax			52,000		92,000		
A Global Food Ingredient Company [Member]							
Revenue from Contract with Customer, Excluding Assessed Tax			0		0		
A Global Food Ingredient Company [Member] | Research and Development [Member]							
Revenue from Contract with Customer, Excluding Assessed Tax				226,000		565,000	
A Global Food Ingredient Company [Member] | Success Fees [Member]							
Revenue from Contract with Customer, Excluding Assessed Tax				65,500		65,500	
Janssen Pharmaceutical Companies [Member]							
Revenue from Contract with Customer, Excluding Assessed Tax			$ 0	191,000	$ 0	380,000	
Deferred License Revenue				$ 44,000		$ 88,000	

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Note 4 - Convertible Notes Payable (Details Textual) - USD ($)	**Mar. 08, 2024**	**3 Months Ended**		**6 Months Ended**	
		Jun. 30, 2024	**Jun. 30, 2023**	**Jun. 30, 2024**	**Jun. 30, 2023**
Debt Conversion, Original Debt, Amount				$ 400,000	$ 0
Stock Issued During Period, Value, Conversion of Convertible Securities		$ 400,000			
Stock Issued During Period, Shares, Conversion of Convertible Securities (in shares)				223,463	
Conversion Of Convertible Notes Into Common Stock [Member]					
Debt Conversion, Original Debt, Amount		$ 400,000		$ 400,000	
Debt Conversion, Converted Instrument, Shares Issued (in shares)		223,463			
Related Party [Member]					
Interest Expense, Nonoperating		$ 52,469	$ (0)	$ 63,288	$ (0)
Senior Secured 2024 Notes [Member]					
Debt Instrument, Face Amount	$ 6,000,000				
Debt Instrument, Interest Rate, Stated Percentage	8.00%	8.00%		8.00%	
Debt Instrument, Convertible, Conversion Price (in dollars per share)	$ 1.79				
Debt Issuance Costs, Gross	$ 176,000				
Debt Instrument, Term (Year)	3 years				
Interest Payment		$ 34,844		$ 34,844	
Interest Expense, Nonoperating		23,591		26,716	
Debt Issuance Costs, Net		26,716		$ 26,716	
Stock Issued During Period, Value, Conversion of Convertible Securities		$ 400,000			
Stock Issued During Period, Shares, Conversion of Convertible Securities (in shares)		223,463		223.463	
Senior Secured 2024 Notes [Member] | Maximum [Member]					
Debt Instrument, Interest Rate, Stated Percentage	8.00%				
Senior Secured 2024 Notes [Member] | Related Party [Member]					
Debt Instrument, Face Amount	$ 2,000,000	$ 2,000,000		$ 2,000,000	
Interest Payable		32,000		32,000	
Senior Secured 2024 Notes [Member] | Third Party [Member]					
Debt Instrument, Face Amount		4,000,000		4,000,000	
Interest Payable		80,000		80,000	
The Francisco Trust [Member]					
Debt Instrument, Face Amount		$ 1,000,000		$ 1,000,000	
Debt Instrument, Interest Rate, Stated Percentage		8.00%		8.00%	
The Francisco Trust [Member] | Mr. Thomas Emalfarb [Member]					
Interest Payable		$ 20,000		$ 20,000	
Irrevocable Trust [Member] | Bradley Emalfarb [Member]					
Debt Instrument, Face Amount		$ 500,000		$ 500,000	
Debt Instrument, Interest Rate, Stated Percentage		8.00%		8.00%	
Interest Payable		$ 2,000		$ 2,000	
Irrevocable Trust [Member] | Bradley Scott Emalfarb [Member]					
Debt Instrument, Face Amount		$ 410,000		$ 410,000	
Debt Instrument, Interest Rate, Stated Percentage		8.00%		8.00%	
Interest Payable		$ 8,200		$ 8,200	
Irrevocable Trust [Member] | Thomas Emalfarb, Scott Emalfarb and Michael Emalfarb [Member]					
Interest Payable		$ 1,800		$ 1,800	
Irrevocable Trust [Member] | Conversion Of Convertible Notes Into Common Stock [Member] | Bradley Emalfarb [Member]					
Debt Conversion, Converted Instrument, Shares Issued (in shares)				400,000	

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Note 4 - Convertible Notes Payable - Convertible Debt (Details) - USD ($)	**3 Months Ended**	**6 Months Ended**	
	Jun. 30, 2024	**Jun. 30, 2024**	**Mar. 08, 2024**
Conversion Of Convertible Notes Into Common Stock [Member]			
Bradley Emalfarb (2) (in shares)	(223,463)		
The Francisco Trust [Member]			
Issuance date		Mar. 08, 2024	
Due date		Mar. 08, 2027	
Interest rate	8.00%	8.00%	
Francisco Trust dated 2/28/1996 (1)	$ 1,000,000	$ 1,000,000	
Principal outstanding	$ 1,000,000	$ 1,000,000	
Irrevocable Trust [Member] | Bradley Emalfarb [Member]			
Issuance date		Mar. 08, 2024	
Due date		Mar. 08, 2027	
Interest rate	8.00%	8.00%	
Francisco Trust dated 2/28/1996 (1)	$ 500,000	$ 500,000	
Principal outstanding	$ 100,000	$ 100,000	
Irrevocable Trust [Member] | Bradley Emalfarb [Member] | Conversion Of Convertible Notes Into Common Stock [Member]			
Bradley Emalfarb (2) (in shares)		(400,000)	
Irrevocable Trust [Member] | Bradley Scott Emalfarb [Member]			
Issuance date		Mar. 08, 2024	
Due date		Mar. 08, 2027	
Interest rate	8.00%	8.00%	
Francisco Trust dated 2/28/1996 (1)	$ 410,000	$ 410,000	
Principal outstanding	$ 410,000	$ 410,000	
Descendant Trust [Member]			
Issuance date		Mar. 08, 2024	
Due date		Mar. 08, 2027	

Interest rate	8.00%	8.00%	
Francisco Trust dated 2/28/1996 (1)	$ 90,000	$ 90,000	
Principal outstanding	$ 90,000	$ 90,000	
Senior Secured 2024 Notes [Member]			
Interest rate	8.00%	8.00%	8.00%
Francisco Trust dated 2/28/1996 (1)			$ 6,000,000
Senior Secured 2024 Notes [Member] | Related Party [Member]			
Francisco Trust dated 2/28/1996 (1)	$ 2,000,000	$ 2,000,000	$ 2,000,000
Principal outstanding	1,600,000	1,600,000	
Unamortized Debt Issuance Costs - Related Party	(42,559)	(42,559)	
Net Carrying Amount	1,557,441	$ 1,557,441	
Senior Secured 2024 Notes [Member] | Third Party [Member]			
Issuance date		Mar. 08, 2024	
Due date		Mar. 08, 2027	
Francisco Trust dated 2/28/1996 (1)	4,000,000	$ 4,000,000	
Principal outstanding	4,000,000	4,000,000	
Unamortized Debt Issuance Costs - Related Party	(106,398)	(106,398)	
Net Carrying Amount	$ 3,893,602	$ 3,893,602	

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Note 5 - Commitments and Contingencies (Details Textual)	Jan. 31, 2024 EUR (€)
VTT Technical Research Centre of Finland Ltd [Member]	
Collaborative Arrangement, Payment for Additional Development and Commercialization	€ 186,000

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Note 6 - Share-based Compensation (Details Textual) - USD ($)		Apr. 11, 2024	Mar. 14, 2024	Jan. 02, 2024	Jan. 03, 2023	3 Months Ended Jun. 30, 2024	3 Months Ended Mar. 31, 2024	6 Months Ended Jun. 30, 2024	12 Months Ended Dec. 31, 2023	Apr. 16, 2021
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Number (in shares)						5,830,222		5,830,222	5,469,247	
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Grants in Period, Weighted Average Exercise Price (in dollars per share)	[1]							$ 1.6		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares)	[1]							812,600		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)	[1], [2]							358,500		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)	[1], [2]							$ 2.1		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)	[1], [2]							$ 2.1		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)	[1], [2]							358,500		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Forfeitures in Period (in shares)	[3]							63,125		
Shares Granted, Value, Share-Based Payment Arrangement, Forfeited						$ 20,000		$ 40,000		
Minimum [Member]										
Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Term (Year)								5 years 6 months		
Executives and Key Personnel [Member]										
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Grants in Period, Weighted Average Exercise Price (in dollars per share)				$ 1.59						
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares)				387,500						
Share-based Compensation Arrangement by Share-based Payment Award, Award Requisite Service Period (Year)					1 year					
Director [Member]										
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares)				352,500						
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)								25,000		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)								$ 1.76		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)								$ 1.76		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)								25,000		
Employees [Member]										
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares)				17,600						
Consultant [Member]										
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares)				15,000						
Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year)				1 year						
Executive And Board Of Directors [Member]										
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Grants in Period, Weighted Average Exercise Price (in dollars per share)		$ 1.84								
Executive Officer [Member]										
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares)		20,000								
Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year)		4 years								
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)								300,000		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)								$ 1.87		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)								$ 1.87		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)								300,000		
Board of Directors [Member]										
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares)		20,000								
Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year)		1 year								
Consultant One [Member]										
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)								7,500		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)								$ 5.56		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in								$ 5.56		

Period, Weighted Average Exercise Price (in dollars per share)							
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)					7,500		
Consultant Two [Member]							
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)					25,000		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)					$ 4.14		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)					$ 4.14		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)					25,000		
Employee [Member]							
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)					1,000		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)					$ 1.55		
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)					$ 1.55		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Expirations in Period (in shares)					1,000		
Former Board of Directors [Member]							
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Forfeitures in Period (in shares)					50,000		
Former Chairman of the Board of Directors [Member]							
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Forfeitures in Period (in shares)					13,125		
Share-Based Payment Arrangement, Option [Member] | Director [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year)			1 year				
Share-Based Payment Arrangement, Option [Member] | Employees [Member] | Minimum [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year)		4 years					
Share-Based Payment Arrangement, Option [Member] | Share-based Compensation Award Tranche Two through Five [Member] | Executives and Key Personnel [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year)			4 years				
Restricted Stock Units (RSUs) [Member]							
Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period (in shares)	[4]				354,219		
Restricted Stock Units (RSUs) [Member] | Executives and Key Personnel [Member]							
Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period (in shares)				212,709			
Restricted Stock Units (RSUs) [Member] | Director [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year)		1 year					
Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period (in shares)		141,510			174,837		
Restricted Stock Units (RSUs) [Member] | Executive Officer [Member]							
Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period (in shares)	212,709						
Restricted Stock Units (RSUs) [Member] | Contractor [Member]							
Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period (in shares)					50,000		
The 2011 Plan [Member]							
Common Stock, Capital Shares Reserved for Future Issuance (in shares)							3,000,000
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Number (in shares)			5,830,222		5,830,222	5,469,247	
Share-Based Compensation Arrangement by Share-Based Payment Award, Non-Option Equity Instruments, Outstanding, Number (in shares)			117,925		117,925	243,044	
Share-Based Compensation Arrangement by Share-Based Payment Award, Number of Shares Available for Grant (in shares)			2,040,004		2,040,004	2,773,406	
The 2011 Plan [Member] | Share-Based Payment Arrangement, Option [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Expiration Period (Year)						10 years	
The 2011 Plan [Member] | Share-Based Payment Arrangement, Option [Member] | Share-Based Payment Arrangement, Tranche One [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Expiration Period (Year)					1 year		
The 2011 Plan [Member] | Share-Based Payment Arrangement, Option [Member] | Share-Based Payment Arrangement, Tranche One [Member] | Contractor [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Term (Year)					1 year		
The 2011 Plan [Member] | Share-Based Payment Arrangement, Option [Member] | Share-Based Payment Arrangement, Tranche One [Member] | Chief Executive Officer [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Term (Year)					5 years		
The 2011 Plan [Member] | Share-Based Payment Arrangement, Option [Member] | Share-Based Payment Arrangement, Tranche Two [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Expiration Period (Year)					3 years		
The 2011 Plan [Member] | Share-Based Payment Arrangement, Option [Member] | Share-Based Payment Arrangement, Tranche Two [Member] | Contractor [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Term (Year)					3 years		
The 2011 Plan [Member] | Share-Based Payment Arrangement, Option [Member] | Share-Based Payment Arrangement, Tranche Two [Member] | Chief Executive Officer [Member]							
Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Term (Year)					10 years		

[1] Represents the following options granted: Annual share-based compensation awards on January 2, 2024, with an exercise price of $1.59, including: (a) 387,500 stock options granted to executives and key personnel, vesting upon one year anniversary, or annually in equal installments over four years, (b) 352,500 stock options granted to members of the Board of Directors, vesting upon one year anniversary, (c) 17,600 stock options granted to employees, vesting annually in equal installments over four years, and (d)15,000 stock options granted to a consultant, vesting upon one year anniversary. One-time awards on April 11, 2024, with an exercise price of $1.84, including 20,000 stock options granted to an executive, vesting annually in equal installments over four years, and 20,000 stock options granted to a member of the Board of Directors, vesting upon one year anniversary.

[2] Represents the following options expired: (a) 300,000 stock options with an exercise price of $1.87 per share granted to an executive, (b) 25,000 stock options with an exercise price of $1.76 per share granted to a member of the Board of Directors, (c) 7,500 stock options with an exercise price of $5.56 per share granted to a consultant, (d) 25,000 stock options with an exercise price of $4.14 per share granted to a consultant, and (e) 1,000 stock options with an exercise price of $1.55 per share granted to an employee.

[3] Represents the following options canceled: (a) 50,000 stock options granted to a former Board of Directors, (b) 13,125 stock options granted to the Company's former Chairman of the Board of Directors.

[4] On March 13, 2024, the Company granted 212,709 RSUs with immediate vesting, to executives and key personnel in lieu of cash bonuses earned for the year ended 2023. On January 2, 2024, the Company granted 141,510 RSUs, vesting upon one year anniversary of the grant, to the Board of Directors. The fair value of the common stock is the Company's closing stock price on the grant date as reported on the Nasdaq Stock Exchange.

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Note 6 - Share-based Compensation - Black-Scholes Options Pricing Model (Details)	**6 Months Ended**
	Jun. 30, 2024

Risk-Free interest rate, minimum	3.93%
Risk-Free interest rate, maximum	4.61%
Expected stock price volatility	63.31%
Minimum [Member]	
Expected life of options (Year)	5 years 6 months
Maximum [Member]	
Expected life of options (Year)	6 years 3 months

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Note 6 - Share-based Compensation - Stock Option Activity (Details)	Jan. 01, 2024 USD ($) $ / shares shares	6 Months Ended Jun. 30, 2024 USD ($) $ / shares shares	
Outstanding at December 31, 2023 (in shares) | shares	5,469,247	5,469,247	
Outstanding at December 31, 2023 (in dollars per share) | $ / shares	$ 3.08	$ 3.08	
Outstanding at December 31, 2023 (Year)	5 years 7 months 28 days	5 years 9 months 29 days	
Outstanding at December 31, 2023 | $	$ 322,738	$ 138,360	
Granted (1) (in shares) | shares		812,600	[1]
Granted (1) (in dollars per share) | $ / shares		$ 1.6	[1]
Exercised (in shares) | shares		(30,000)	
Exercised (in dollars per share) | $ / shares		$ 1.36	
Expired (2) (in shares) | shares		(358,500)	[1], [2]
Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share) | $ / shares		$ 2.1	[1], [2]
Canceled (3) (in shares) | shares		(63,125)	[3]
Canceled (3) (in dollars per share) | $ / shares		$ 1.59	[3]
Outstanding at June 30, 2024 (in shares) | shares		5,830,222	
Outstanding at June 30, 2024 (in dollars per share) | $ / shares		$ 2.96	
Exercisable at June 30, 2024 (in shares) | shares		4,430,623	
Exercisable at June 30, 2024 (in dollars per share) | $ / shares		$ 3.2	
Exercisable at June 30, 2024 (Year)		4 years 10 months 20 days	
Exercisable at June 30, 2024 | $		$ 109,383	

[1] Represents the following options granted: Annual share-based compensation awards on January 2, 2024, with an exercise price of $1.59, including: (a) 387,500 stock options granted to executives and key personnel, vesting upon one year anniversary, or annually in equal installments over four years, (b) 352,500 stock options granted to members of the Board of Directors, vesting upon one year anniversary, (c) 17,600 stock options granted to employees, vesting annually in equal installments over four years, and (d)15,000 stock options granted to a consultant, vesting upon one year anniversary. One-time awards on April 11, 2024, with an exercise price of $1.84, including 20,000 stock options granted to an executive, vesting annually in equal installments over four years, and 20,000 stock options granted to a member of the Board of Directors, vesting upon one year anniversary.

[2] Represents the following options expired: (a) 300,000 stock options with an exercise price of $1.87 per share granted to an executive, (b) 25,000 stock options with an exercise price of $1.76 per share granted to a member of the Board of Directors, (c) 7,500 stock options with an exercise price of $5.56 per share granted to a consultant, (d) 25,000 stock options with an exercise price of $4.14 per share granted to a consultant, and (e) 1,000 stock options with an exercise price of $1.55 per share granted to an employee.

[3] Represents the following options canceled: (a) 50,000 stock options granted to a former Board of Directors, (b) 13,125 stock options granted to the Company's former Chairman of the Board of Directors.

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Note 6 - Share-based Compensation - Restricted Stock Units (Details) - Restricted Stock Units (RSUs) [Member]	6 Months Ended Jun. 30, 2024 $ / shares shares	
Outstanding, Balance, RSU (in shares) | shares	213,044	
Outstanding, Weighted-average Grant Date Fair Value (in dollars per share) | $ / shares	$ 1.43	
Granted, RSU (in shares) | shares	354,219	[1]
Granted, Weighted-average Grant Date Fair Value (in dollars per share) | $ / shares	$ 1.6	[1]
Vested, RSU (in shares) | shares	(437,546)	[2]
Vested, Weighted-average Grant Date Fair Value (in dollars per share) | $ / shares	$ 1.52	[2]
Unvested shares forfeited (3) (in shares) | shares	(11,792)	[3]
Unvested shares forfeited (3) (in dollars per share) | $ / shares	$ 1.59	
Outstanding, Balance, RSU (in shares) | shares	117,925	
Outstanding, Weighted-average Grant Date Fair Value (in dollars per share) | $ / shares	$ 1.59	

[1] On March 13, 2024, the Company granted 212,709 RSUs with immediate vesting, to executives and key personnel in lieu of cash bonuses earned for the year ended 2023. On January 2, 2024, the Company granted 141,510 RSUs, vesting upon one year anniversary of the grant, to the Board of Directors. The fair value of the common stock is the Company's closing stock price on the grant date as reported on the Nasdaq Stock Exchange.

[2] Represents 212,709 RSUs granted to executives and key personnel, 174,837 RSUs granted to the Board of Directors, and 50,000 RSUs granted to a contractor.

[3] Represents the cancellation of RSUs granted to a former member of the Board of Directors.

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Note 6 - Share-based Compensation - Noncash Stock Option Compensation (Details) - USD ($)	3 Months Ended		6 Months Ended	
	Jun. 30, 2024	Jun. 30, 2023	Jun. 30, 2024	Jun. 30, 2023
Stock-based compensation	$ 297,603	$ 334,316	$ 604,081	$ 664,955
Share based compensation expense - stock option	297,603	334,316	604,081	664,955
Share-Based Payment Arrangement, Option [Member]				
Stock-based compensation	243,538	278,373	433,807	554,914
Share based compensation expense - stock option	243,538	278,373	433,807	554,914
Restricted Stock Units (RSUs) [Member]				
Stock-based compensation	54,065	55,943	170,274	110,041
Share based compensation expense - stock option	54,065	55,943	170,274	110,041
General and Administrative Expense [Member]				
Stock-based compensation	285,372	323,796	579,406	643,132
Share based compensation expense - stock option	285,372	323,796	579,406	643,132
Research and Development Expense [Member]				
Stock-based compensation	12,231	10,520	24,675	21,823
Share based compensation expense - stock option	$ 12,231	$ 10,520	$ 24,675	$ 21,823

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Note 7 - Shareholders' Equity (Details Textual) - USD ($)	3 Months Ended			6 Months Ended		
	Jun. 30, 2024	Mar. 31, 2024	Mar. 31, 2023	Jun. 30, 2024	Jun. 30, 2023	Dec. 31, 2023
Stock Issued During Period, Shares, Conversion of Convertible Securities (in shares)				223,463		
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercises in Period (in shares)				30,000		
Treasury Stock, Common, Shares (in shares)	12,253,502			12,253,502		12,253,502
Treasury Stock, Value	$ 18,929,915			$ 18,929,915		$ 18,929,915
Common Stock [Member]						
Stock Issued During Period, Shares, New Issues (in shares)				666,578		
Share-based Compensation Arrangements by Share-based Payment Award, Other than Options, Grants in Period, Weighted Average Exercise Price (in dollars per share)	$ 1.61			$ 1.61	$ 1.38	
Stock Issued During Period, Shares, Conversion of Convertible Securities (in shares)	223,463					

Stock Issued During Shares, Restricted Stock Award, Net of Forfeitures (in shares)	61,793	375,753	247,961	61,793	247,961
Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercises in Period (in shares)	5,569			5,569	

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M#5F"'6776 < '0B 8 >&PO=V]R:W-H965T&ULK5IM M;]LV$/XKA%<4+6#7XHO>TL1 ZV!8"[0+FG;[,.R# (M&Q4$ET)2II]NMWE!7+ M$BDZ054@C10?3\^1QWN>HW5^+\KOU99SB7[F65%=S+92[LZ6RRK>\CRJWH@= M+^"3C2CS2,)M>;NL=B6/DF90GBV)XWC+/$]+V>]\^=M5N3H7M'9ZJ!Q]>/WG]O@H=@;]**KT7V=YK([<4LF*&$;Z(ZDU_$_1^\#>H V@Z@3:![M9$U8EY&,5N>EN$>EL@9OZJ*9FV8T1),6:AFO90F?IC!.KM:BJ$26)I'D"7H? M95$1O#Y?2D"A?"WC M]HGO]T\D(T_\6!=O$'7FB#B$&8:O[<,O>0S#<3.<]H7<5G; RJQ8K[>BE O)RQREQ1VO9*Y6J>)Q7:8RY4;(>X_N$10:>LS% M_@"R;N>S@(2.&;%[0.Q:$'H T A>H6E">(_ M@:DJ7C7Y*N26EU .C[>]";FOSQKQ?#*<7-V,$M W73/RX(\L"+ *F24/0%D M8%A:V"^>@P]<,JJ-Y&S7KS8Z3C.L:[, MGSM>1C(M;E'&@?)1J;A](3:+&FZ:*9BC@DLCESGZ:F&?LN%F,-DQS.C(;L!' M_(SMV)O4\^F=G@_G1AQA_B,9AX9@=>Q)[825IOT%GC$\%R/.M0G0X2Z94!P M2*@W@K%C/4R?1/%9&MVD6<,>QHS'5O9\;LI/Y:T?=$>?V,Z?AUJ_BQ[&"CW6 MB9!1XI)A(3+8>:['V$@APAUC8CME LBRYEVQ-X+4J3#P'3<)@?^&H'<@OP&^'K?.EBQ]=*C&[& F=,#^". M5O%S>/5H$QNQ&M@U9(&+M8*M&Q("4C' (W@[>L5/Y]>3)6=2EIW*6[^1ZF8 M(/[FC[(,V!6)S5.2C>$ZA&/#DN2P2P(H"Z8%XJT=$OL=+M/MA-1)G0R]8%+ M<3@4F@9#0 M:&4ZFM@9M^Y"+5&:6UB*Y[B^1%Q=POZ9EA/YZ>QD6,=!T#H(+G-0WQE$2IT)2?^8 M#>ND7MV+7^>/-K@B7'VV^$_'=0R$K8'P70:H4N5I^' ':AO[6$0'.&J!HWGTH2GE"].44V]SG1';0!RWX +T\YIZL ,3>G'@>>%VL?<%XGX8]8/] MT,,6>G@!] 6-/=P!\H=A\/#X1;YGL#!P#/P!SK%P_]><_@H^P]SQE&E?*OI M3P$WR3HWWO>C(,+^%O$YD36RN_&2MB>D[T0N*%> (P=Q(<2\V.61]Z*@G6A35 M>_M9:',*J(:9..B!M %F?RZ$7D_L4:]^DW^ E!+ P04 " #Z@0U9"OO2 M"0 ' "6)P & 'AL+W=OLE+_<*I(MA;RL;N?UMF+INA4J\CF&T)\7:5;.%J?MO8MJ<E<4:?5PSG)^ M?S9#L\<;E]GM1C0WYHO3;7K+KICXLKVHY-5\8%EG!2OKC)>@8C=GL[?H)"&P M$6@1?XLOM[[#AI5KCG_VER\7Y_-8#,CEK.5:"A2^7"'EBS/&R8YCW]ZTMDP M9B.X__V1_9=6>:G,=5JS)<__S-9B'B5*2+TXK?@ZI!2[;F2VO]5EK:*RN;0+D2E?PUDW)BL>1E MS?-LG0JV!E="?L@H$#7@-^#SEE5IX\T:O/I2IKMU)C&OP1'X//C$&&4*!M'SD -\ENV/ECM4G)L=VHM0L MVF2SDWJ;KMC93*:KFE5W;+;XZ0?DPY]-5G5)%KLD2QR13>Q)!_M3&[NT?\W2 M:K4!:;F6N>Y.)O%M\S#*?-PZQN26CM%O&9LUX6Y!0B^,_-/YW;[!=5A(N1% M4UBLPP(,/42FL$2'H1!Y&*$!-]'? &_3WK/&WY+5,/(WR[)MBYC$27 M9+%+LL01V<03 N)WQJG2?D$E*]:W@3XYQTJ4")H7CH9F.IV"D).MT9")WT#&0;]_TO+3LMPNQ:Y%>* M1^OZ^*KM4[+H^8\/##X/A<,661Z\$J/"O'@*+)ZG]02P,$% @ ^H$- M64-]!NSP @ !@H !@ !X;"]W;W)KU#*W7$N1&H &FEFK9)DU"[;I_=Y$"L.G9F.]#NU\].0D:XT_$! M?#GOR?.>'!*/5D*^J Q H]<<<35V,JV+6]=5208Y43U1 #<[.$!@=\(_',%02, (*J,U667KGF@R&4FQ0M)&FVQV4-6F4ALWE-O;^*BEV:5& MIR=3P95@-"4:4G1'&.$)H$>;3J&K:2DE<(UF(*E(T1,G94I-X#6ZFA&[DX&F M"6'J&GU$'Y"+5&:6UB*Y[B^1%Q=POZ9EA/YZ>QD6,=!T#H(+G-0WQE$2IT)2?^8 M#>ND7MV+7^>/-K@B7'VV^$_'=0R$K8'P70:H4N5I^' ':AO[6$0'.&J!HWGTH2GE"].44V]SG1';0!RWX +T\YIZL ,3>G'@>>%VL?<%XGX8]8/] MT,,6>G@!] 6-/=P!\H=A\/#X1;YGL#!P#/P!SK%P_]><_@H^P]SQE&E?*OI M3P$WR3HWWO>C(,+^%O$YD36RN_&2MB>D[T0N*%> (P=Q(<2\V.61]Z*@G6A35 M>_M9:',*J(:9..B!M %F?RZ$7D_L4:]^DW^ E!+ P04 " #Z@0U9"OO2 M"0 ' "6)P & 'AL+W=OLE+_<*I(MA;RL;N?UMF+INA4J\CF&T)\7:5;.%J?MO8MJ<E<4:?5PSG)^ M?S9#L\<;E]GM1C0WYHO3;7K+KICXLKVHY-5\8%EG!2OKC)>@8C=GL[?H)"&P M$6@1?XLOM[[#AI5KCG_VER\7Y_-8#,CEK.5:"A2^7"'EBS/&R8YCW]ZTMDP M9B.X__V1_9=6>:G,=5JS)<__S-9B'B5*2+TXK?@ZI!2[;F2VO]5EK:*RN;0+D2E?PUDW)BL>1E MS?-LG0JV!E="?L@H$#7@-^#SEE5IX\T:O/I2IKMU)C&OP1'X//C$&&4*!M'SD -\ENV/ECM4G)L=VHM0L MVF2SDWJ;KMC93*:KFE5W;+;XZ0?DPY]-5G5)%KLD2QR13>Q)!_M3&[NT?\W2 M:K4!:;F6N>Y.)O%M\S#*?-PZQN26CM%O&9LUX6Y!0B^,_-/YW;[!=5A(N1% M4UBLPP(,/42FL$2'H1!Y&*$!-]'? &_3WK/&WY+5,/(WR[)MBYC$27 M9+%+LL01V<03 N)WQJG2?D$E*]:W@3XYQTJ4")H7CH9F.IV"D).MT9")WT#&0;]_TO+3LMPNQ:Y%>* M1^OZ^*KM4[+H^8\/##X/A<,661Z\$J/"O'@*+)ZG]02P,$% @ ^H$- M64-]!NSP @ !@H !@ !X;"]W;W)KU#*W7$N1&H &FEFK9)DU"[;I_=Y$"L.G9F.]#NU\].0D:XT_$! M?#GOR?.>'!*/5D*^J Q H]<<<35V,JV+6]=5208Y43U1 #<[.$!@=\(_',%02, (*J,U667KGF@R&4FQ0M)&FVQV4-6F4ALWE-O;^*BEV:5& MIR=3P95@-"4:4G1'&.$)H$>;3J&K:2DE<(UF(*E(T1,G94I-X#6ZFA&[DX&F M"6'J&GU$'Y"+5&:6UB*Y[B^1%Q=POZ9EA/YZ>QD6,=!T#H(+G-0WQE$2IT)2?^8 M#>ND7MV+7^>/-K@B7'VV^$_'=0R$K8'P70:H4N5I^' ':AO[6$0'.&J!HWGTH2GE"].44V]SG1';0!RWX +T\YIZL ,3>G'@>>%VL?<%XGX8]8/] MT,,6>G@!] 6-/=P!\H=A\/#X1;YGL#!P#/P!SK%P_]><_@H^P]SQE&E?*OI M3P$WR3HWWO>C(,+^%O$YD36RN_&2MB>D[T0N*%> (P=Q(<2\V.61]Z*@G6A35 M>_M9:',*J(:9..B!M %F?RZ$7D_L4:]^DW^ E!+ P04 " #Z@0U9"OO2 M"0 ' "6)P & 'AL+W=OLE+_<*I(MA;RL;N?UMF+INA4J\CF&T)\7:5;.%J?MO8MJ<E<4:?5PSG)^ M?S9#L\<;E]GM1C0WYHO3;7K+KICXLKVHY-5\8%EG!2OKC)>@8C=GL[?H)"&P M$6@1?XLOM[[#AI5KCG_VER\7Y_-8#,CEK.5:"A2^7"'EBS/&R8YCW]ZTMDP M9B.X__V1_9=6>:G,=5JS)<__S-9B'B5*2+TXK?@ZI!2[;F2VO]5EK:*RN;0+D2E?PUDW)BL>1E MS?-LG0JV!E="?L@H$#7@-^#SEE5IX\T:O/I2IKMU)C&OP1'X//C$&&4*!M'SD -\ENV/ECM4G)L=VHM0L MVF2SDWJ;KMC93*:KFE5W;+;XZ0?DPY]-5G5)%KLD2QR13>Q)!_M3&[NT?\W2 M:K4!:;F6N>Y.)O%M\S#*?-PZQN26CM%O&9LUX6Y!0B^,_-/YW;[!=5A(N1% M4UBLPP(,/42FL$2'H1!Y&*$!-]'?

=\=X/D9]VFL3^0&D:X)1UKZ!Y1Z'Q([],6]Z[4=>8+9?G8C1=9-,12!Q-LO$(3A7.=3Y)1(, $R%@] PA M9HSH@!MDI0PQ$ H'W(R]&_Z1@:M][>%;R%1<+=\K?8^S#"K(]7$H MFS\'RH)G%:.C[^.C[Y._T* 0NYZ^K:W@9-?E[=PCNW51$YH0>C@WBT\PRM1E MV>M122PC(^UQ .S.J*D!YN&!#===AD1W_9:EOVO5!4Q/TP+>&3^EG,%06 M^BB_0D)WWWQEKD(*)$WM<=]XYQ6I;^378/R<-CX>+09+J@N5H0_O\6@^F(8G M',@?Q/S+^OL* M^'W-CU%,F M08!<16_#WHU$SC[MMT?L? ZN%NXN>#&'*US($3P-;N_C6PM_Q" [EL0^P)9R^W5-W94. (*&T1U>R M5_.,U1F^-]#;NBY<69:E70DT*@\2ECN9>Q:QQ.(_MKMYJ_PI'S_@%)0$Q<" U%,VZ-0V(QWUW7N]\3T-3PVX75@:FJX98< M8B=U!]5"V;K6_#C[^4"+^K0#2@3F*FNI-H=Y0@VRM=MJ$(?$2[N]*S_^[V M 9-WHBEH3RXVDC[F'*19A:C&W%NN%SC"U99[Y7[IX1V?^DHID(T%L-Y/3=(5 MJ0NMS-OR9+RE&WR$S8/? P>7%QUT2IWRX]/T0P?K8[-,>/7?B+ZH7Z;HL9@1(M?3Z>)9-;#I(N0#4 -(VGB7Y:X=-!?WX<,-Q@BEFV!%7C\3A9J7]ZSRT?I6,& M[70T6E)QCU*P/L" _>=#J(%;7)$UESK-PW(=X-\GX^NCHUPJFKOY]V 46?P1 MO]\D/QATBW#<&IXC;QH"SHSC]Y[EU1) =J%M-H@_G< 2OR(%NX7$0HR70Y\/ M6;5Q(6^WYY\QF,K B/DI$K9N:)M?>/\W;NKMZZ3!>YZN&9BPY^2<#[M68H MRAP/C;L%G)3M\F7?YN$LAWO7M?*M)5)0D:<,V[B">[?X%TH*6JG'?E^N<)Y M&8H,[E<+R5:%OQ:[N+ZD P\BI_K,G6;'W,Z8TZ=^4/TT^8'\3ID- S, UK5! MNM_*QZ?Q7QJX<#^P[X:[?Z8 T&L# "I*M<;4X6 Q>R2,^^F_^]+4>_ZY :IN MFGK"RGO588&X#TUS(_#]02P,$% @ ^H$-65,71_32! MV P !@ !X;"]W;W)KY ML1.]R>F,MFJ_S&T6C7FLEXP66FLL2%,[.O//P^*)OY9W -XX+O?8-UI.I ME]V\"D[\P(+" 6FQEI@]'K$2Q3"&B(8/QJ;7KNE55S_7EF_H6TA1RO(%>@[]4Y1'$@0}1$/7WV(O;$,3.7KPG M!!J,A"M>LC+E3,"M809W^EN;ZV\W9ZOH6,]9BF<>E8E&]8C>Y.V;_?;[DU-FN.? MY0S2CC4Y R;H*'<(M Q!JG"C!L0 M4FMLT'+S"E$A2UQ2]=F8PJPJLVV@V"/CPD;\D P?:@K "R?(LHM::6KQU(8* MGT,%=''X9"DXJ2RT%9YB5FS+AH+JBUDC-I/>#E/=3YU;E<:*>Z&=?4Y60O MKL;EUMUUR%/K\G<*4C.W!+.N&%?PC8F*7*WS]MGE#3Y* MD=F ?*';YWG4+)YGW>GL)!.7I.(:H=;G3:K6$P(B>SX6LE= M.V[4]097CAN=J LA)'X_"? QPD+1*F^]GB=MJ:J2ATV;@AW'LQ^/13J5GB=N< M"'YXAZI8J[#U#R(_&K^%U:#]*H.M$ M^GX2#N'.@3N ,/"#<>(/QKOBT^HVLD-_'"9;Z<$Y_Y_0(4K\X3#Y1S8T8CO) M,/#[H[$?)? &>O*XDULB0A(D?1/O(L)+X;V08]D=^&&RA0CA**)EV.1H'+0V& M?C2(+0]WL:!66PG&X0C^W/P#=]<>0X>B8W*%Z/2CP4F3^W!C'&V,B4,TUZ%W M:%_]QLC+ <\=QS5\ '.T5@=3\99]QG$@'/J#(+1MP+Q2 M:4Z-WNL;9^N1Z9-U/4?778KE$6C^M 60#]1$.DQ+9 K0]D);2N3G8(_]@/S M]U"/*&;)!CCK_"L<='%*0 ^PK6/IK76;!:I[UU/3Q6,!UHUG.]NV[>=UM_HL M7O?\5#3WMEP%SD@U.!HF']BZCZX'1LY=[SJ5ACIA]YG33P]45H#69Y((U0SL M!NV/F&PO=V]R:W-H M965T&ULO5;?4^,V$'[GK]AQF3[E$B>!<$F8JKZ3&1PNN*@IAUQ>HS.H\&D;MPI-TN[DNS\]%?C$<;P 9[0H;!)#D*G0!R5F!LK0N9F"XM(M0GC7@^=]KF1"HN#6,AO=ZB4Z'Q9 :GBT(J;O0^2 M)L:+.L;1.S%.X-YHGSOXK%-,M^T'Q+C>'2T!V_< M)7$<\,9[DNC &[B66NA$"@7/GKB'7.SB6\,=[8;C/CQUI4CP/*)&3ECUT$ M]KK83:"NM-/_K]!HPR@IB-B#'!I(<87122]X#AXD)2+1!AO6BS\D/./E:GVX+ MI'=PJ_]<=6PO*X*Y\".L92))VCA:&'\.1<> _@&Y6F)00$C[9P8++PTEFV%(@! MV#8#R19[JI\4ES0F2SI#D^:%1C+!I$+:-6 #M))*P1PAJQ3%G57<$3!?=XY6 MTG-FH2HS2TT#I5@';4UV]7+->W?VH!=V:U76Q#TQEF.VFV70\ [^+3WK"D,* M>>_PTZ@7QX1&%B6&(:[6?1:>)-3-< ^T=R:\#S/XHLR<&%X;PY+33BK94QL3 M27HOUC"L(Q[UX$U,J2D]9+HEZMW5K =7:Y*!%;";0HGJ21+:THKT=,WCI_3 MJ@XQH2\/<*&DG\X[(^/B: =I\Q[!4^JW@GM'&K.S!4F3:U/PNZP M!Y?#X.1AHQ9:P^[T>%@O]?\]BOK ^\&\NS%392Y8;N[C43S\%-+2JHI+H2K! M66'O6K19YAXSTACTKZ-269=*510@ M1.&Z>L.M:Y/%)]T82/B-7>FH4; ??H:T M0BX"]I.(4GH27T7E;=+<R!F&3RS[C M,+F!=@U(F@Q^A21<4YT%[#K MJS?8N/,4:!?A9L>]4&E?7W^ZU>[R.*OO3& 'ZYOGO; +J1THS,@T[I\<1V#K MVUS]XDT9;E!SX^D^%AYSN@"CY0.TGQGZMC4O[*"[4D__ E!+ P04 " #Z M@0U9[P#CS0& Y$ &0 'AL+W=OV^M %L\S9GSG N)'.VDNI9IYP;>,VS0I^W4F.6)]VNCE.>,]V12U[@ MS%RJG!GLJD57+Q5GB17*LV[H^X-NSD31FIS9L7LU.9.ER43![Q7H,L^96E_R M3*[.6T%K,_ @%]FA6>[D;,D6_)&;[%M[A;UNC9* (G!=:R (4GY^W+H*3RXC6 MVP6_"[[2C3:0)3,IGZESFYRW?"+$,QX:@#X*G/,L("&G\K#!;M4H2;+8W MZ-?6=K1EQC2?RNR'2$QXMLE(.%S5F;F0:YN>&5/G_!BF6G[#2NWMM=O05QJ M(_ -*&!GDHG"_[+7:AX; R-\C$%8"H>7M%%F65\RPR9F2*U"T&M&H84VUTDA. M%.241Z-P5J"NC)AE'&A0PSU;,^R==0WJH=7=N,*\=)CA M'LP!?)6%235*1*>O)7O(K^:9+@A>1D>!/RM++#K0\ST(_ 3 Z@->KC>Y9O-X! MHS48"=>B8$4L6 :/AAF.P6;T+GL=7+0;CO+F1"]9S,];F!B:JQ?>FGSZ)1CX MIP?(1C79Z!#ZI.F8*SXS\,<3?S5PF' 4=GQX2OD.(:8X:%X(J3S\C4O%$Y"S3"P89:(&.0=C!?,E*]; B@2$ M0;'Y7&0" _]-U88CA0-" W+BL?/DBDNDY3/C!9\+L[$UE1D*-4Q_OV=MSG!W=8E? M;BU2A4^_C,+0/[VQ [83G!YW]NPZEBC<:=J/IJ>&'LR%PDTDH9N*1<[6$-!\ M@! T):VB_.KUH) &!KY=4T^SANC**S).@4A]_[EW@'PU.-R ,%L6.,DA8O!0\&SI3@A8UF!XL)0$CL^]KS M<(@Y 1P%G>'8!H E1T-- 'AVXKAQF4H7NPU+#ZU+C';"=Q3&%&7*8.P-H0"58 M3CB6<)^Q>,4HJ&/0]+6SLZW5*D2+Q#S0KNEBXO1D$?@<$X5CM5^"%*T&E[:H; MGBQ$L:!YSWIE\R'\IT8F80J4BK+M*!@./-_WR=R$E NM2\LMEII236L94ZHE MCM;.F/3000(#:859B \KFAT,[*Q^FD@)MV9 MF//];$M-VJS ?,[M56$+FG.3RJ0#/X@MCN$YC(!['T2N+L)!58*V\75AL^-- ME(%'L:- *WJAXU>9]Y(E@BF=V,REC1!4ATL:1285*#@4TJCKJ1=XHBHA%K6W% MJ, *M\>[_$%Y%/:_CAPP?#1*S8T1/'1$6)'&.CZL"5DO& J=S!LDU&+U_^0 M^< ;!H/_F?E>QY9YZ?RU5;TOY"NFN\% <%83;C1A>]_"KK!JW&_8/U'L?-W!? MGX[;U@/'0]79TJA"&&!35Q\?J3XVUM^5!LTO$DJ4:T7W)AU+>%)X206W.V$W M''6#\7@ [> 8 _%[7'W61>=48TDE\! '5)5N;CNSY%H2G;UK;^4O%DHROX4O. MLCE3,VB'>U#[E<0&I1U5 \<0O -[C*4Q6\A;+)G(N_T^T,OBH*=+))L 7)(M>]P?'22^G?UWXDUE[< ?>+WQ:"_OGC<:]W!70OCK_9]C?P)M".RUASYO4RJT ME-H0U@MVWA;>=8 "2JRW S/P1K[? @5T/A&[C.9=SM;"\3OKH^H2GN95>/UN_B M"_<+-04/&YRCJ=X;#%7NH>HZ1B[MXW"&62%SVTSQ;<\5+<#Y MN<3-J3JDH/YOP>0"4$L#!!0 (/]!#5FPJ'YJB@( )\% 9 >&PO M=V]R:W-H965TL6-%W[,.Q!L9E8]'UYDMQD?S]*=KUL2 T8MDCQ'Y,SO92O>@,T<"AR(6> M>YDQY=3W=9)AP71?EBCH9BM5P0R):N?K4B%+':C(2@(QG[!N/#BF=.M5#R3 M97+]+]E27F!0G,I M0.%V[EV%T\70VCN#)XY[?70&F\E&RAX_89//R/(E,M?N M#?O:=C3T(*FTD44#I@@*+NHO.S1U.),@G< 40.(7-RU(Q?E-3,LGBFY!V6M MB7*H.3<%Q89NR- HIN.>%,_%4:A!%\@*4L"FZHW$8#$RG)PG"Q0Y%PU#/? MD"^+\).&=U'S1N_PCN&>"#(--R+%]%^\3S&V@49O@2ZB3L*[2O1A$0@"]A M!]^@37S@^ 8=B6LP$FZY8)0DRV%MF$%7@5/YUG3#TW1V=J:Z9 G./1H.C>H5 MO?C\+!P'EQW!#MM@AUWL<6=SX)KK))>Z4@@_'O%@8)'+Y.7GJ22ZW=0_P[3[M7X ON*-BK91,$%-2:WA&8.1<2 -2(#P]/L(#U8"I)'-81;,'-P?3S/(W 7=, M5+0#8!#6#>W!,@1J,4(TL9KPHM>(M4'4@S66U)T-*KBH5?W_648].#^;#,;# MRW R[@5!8$GIN0A.M< _&IH"U% MAARW! WZ'T<>J'H=U(*1I1O!C30TT.Z8T09%90WH?BNI\HU@';0[.?X#4$L# M!!0 (/]!#5GY3=U.NPD -@9 9 >&PO=V]R:W-H965T2G;BM$FG!;8?4D42*5(D#TGE9*!'IST1PK"G:5GIT][$F-G' MHR.=3\24:U_-1(65D:JGW.!K/3[2LUKPPA)-RZ,H"+*C*9=5[^S$SEW79R=] M;DI9B>N:Z?ETRNOEA2C5XK07]MJ)&SF>&)HX.CN9\;&X%>;K[+K&MZ,5ET). M1:6EJE@M1J>]_#C14+ [[89O4BQT9\Q(DWNE'NC+\5I+R"!1"ER0QPX_CV* M2U&6Q AB_&AX]E9'$F%WW'+ ;'6'+O=%F9SV!CU6B!&?E^9&+7X7 MC3X\TG6[B]2=IC^5P;-6V((<%45NX_?VKNH4,P"'801 U!9.5V!UDI MK[CA9R>U6K':=H,;#:RJEAK"R8J,U@F;&_5&4FFGVJ"E%LTA]!O)6,42OC1?0J MPS_GE<_BP&-1$"6O\(M7.L>67_R*SIH9Q3[+BE>YY"6[-=P(^)K1V_1U[)+M M["AL/NH9S\5I#W&A1? TH>F> __A)FP?$KPB8K89/7N)\YNUQ8NUSS)=68$_!PM!]\]U<%O=DC!L9_%1 M*;:><9S"S!%[:V*?G6L2QC)OG87Q:LDFO&"(H_R!*2LRMLV--KPJ9#7&C@*R M]+UAE+)Y]2BT@;:X"E/+G(:._LAE MR>]+P8"9; Q3&= 7HF:FO9LKD8OI/69BIT+,/%]L!5O01^HEV="+DOY/Y(Z2 MV N2Y+UR1UZ_'WM)D&UHX"2[M61?F@/;_]CE% %C,)C-ZWP"MWBFMV$P3DZA M-<&8:,/.8(+%*3YB,N:/?)R+NA FMD@)]DP5R 0[< IS:1N3_;9-ZA'NF.N M$$;4P$,(=+^T^R\4KPOB?"5K0+ZJ-4E$*P99A!8L']Z#'!3%/E']XX97X+ M[MB+'!^[R#7# _K'NN*(1\/Z*A*V%L%SM 8=6@TUE!<\G[0G.(: "*8.T @WF MFK2R2I0\?SB\S2>J)+LX"KI5VC!5A2BMX?E4U4;^%Z0D,C2H.66?0PIO2E+@ MKAX;!6H806H)F2B\81\V$[54A<<6$PFQZ()%)6I>ENXB'YM;;K>1%UL%M)CQ M&@)CWVH/R>%0@$CM[3$.C^M^7W#MD0_J^3VY;RX\-D72E+.RV:%)]E7;B^+V MSAS*.'6M^.2D4U[Q!O/@4%/^ /\1M>'DW!HU1>.J"VDF% GD(^R$##" M4HJR #J9]9IS)1L% [%&5T*,$,A+$A:G]!&ZM-I=R9'5V5G9^V=5D3K@KJ[?Z M!9E!$[:B*458J+ETS-XM,I^?JEL[_C#R@*$C\+/^Q4W<9$=/SA9_JS+/;C M+I]-S37;AY9+P6M]P% (_#0XS'V!\U[4+,Q907>D(Q]=.H8W(I?H.&(>UW0I_ MMU6:* [/$1YPIY<3-X)*63KR$E5,#:X$8>?C<2W&=#5_8%*B)LU=>D25\R3J M7,)]KZW:=X0L^]PVGRS /"E"]MF"_BO\7X/5Q\,< M91N, (4!T/V&^-(??# M S8((R\+ A;Z6; Z&TM0,<#T 1;BC*X:08/IZ !+Z:DWP#B*(H@6^<,,8@YBC,-XX,5K::RE7A G7H)Q%L56 MQRB ;PV&1!P,O1AL_OW\C]DR[2/;9TUAD!VS\ZHB:^A.K9IW"Y,&O3'ZDV-G MO42N<\<34(_4O-X#XRUR*$,#UK=^].8#$E%P-Q60RT7+]V0B"_+LBG), MDUD^D\YO3"%1Z%H! *J?Q!L9(TX3+PJ'+F-\UG5!Q M#'+J[]"O%M[U[D;$O\]Q([]MH. M*62\<>DM@W M4- BSN5U7+'A=;%[;0F-8\A4P;*M65M?@UN8S:G?-NK?E76"<(60J0V]5I7P0 MI9PH96V'QDS" NV%6;"IY'(DR?YKF3? V+B&KA:V?T,(-X"G#/BO[+^SS&H$ MI\:.7$[E5D\TI<_;]=5.VC%6M:2HO[,VZKX1KHUU"\MM7[%F=%"W&OVVV\50 MH0Y2+^Y'MHR. 5U44*?]H7WWV&-9@H0;$YCL<&4@2Q2'*$^]%,4J\"?KI\ ; M;X!SW3WAB&$? M;BM:./$BT/+.$B\8!#2*$N\8?]F1N(Y(\/3=!.T"@R!+P<@;(A.&?;0L?VX'<8_N;@H:0 M\]XA_?5[.I38VW6K_>[G[S0.8;HYDT[#$R9N?_A;/QR\' MWH)UZ:*=#[Y5? [9R&S6>\;+C%WRG:QYSKX(734[%3HR9IBS?]N_7\5=S=[F M5?]]]RB#F_4?Y0$(V->M8)=5L>/EGHF['0B>9G7%9)DVBN65UC &9V[YC6"E MV'"42/A0LY3K+5N#BM!LK;]"@=91G A#8BMK) W73,+0"BG6P/=_W(!6V>$H M"3L5,E752@)$NYS7J+#,:DK 5Y&OG;JR!D"*Z*E9#*+YKF[^1.(!K,+%%N M0"O!FY*M&U5OA6*(!Z[2+:VWFX.]D,885N84@M5(AQV1!SL%A0/_J4!B)>M M5!G[7+)/M.32,'74^;I@+]B4)2P^GTPB-GMN$5S>"%7+52[8;U6-X"KI'M"AE MI2+X"[B&PU:K7")^JU*S:LW>[7DF4P(<-^?KM-S^2:">V$H@Z?&%((_KIK=P\N!X/_UMF<2+EYI=YEQK=@'CBP+V M "6:?F:K!EB#H@/X",(V.U6 AIAM*=%G "_V+&@SX#<(":3,0,=*KP.A?\GD]%T/H&U@=.^ M;I^2MX 0"A$]2#V7C=EAK.)=+K9[2I5,Q!YD%RN3H%'"A"-&P$RR3:@TVHC M(#Q-P?8]7 K'HE*MQ0:8L%K|(<@6(WA((]%2D%KY%S=XI_6:LI6G'9R[&"; M&NQ43HN757EZ^'BW [5G6'[4JX]0\6U+=U*17B*-Q*?H .(-3YW!:W3X$K&G@ M-5)(O:2/@ lO0&P*F@=BDHE5;420H#?"U>JR0,L1+H&E=0.B"(8'T Q$*] / M0S#MG JT2,16C4:UY)8C791[5:P0=B4,#(@N8+A<<&V8N40C4(/R 73'"0C> MGOZ554W_S&SFE>@N2#]JRNBUA0=VL-- "'*V(#,G@K(5"LQ8XKTF"TH,I@7P'L %+S M;70]8AM1 NEQ(12@'0+'6S?%ZMX<]8[5.7^_N+AJE0VR0$,:G6 ,/)SK&@#E M"HS=9961RT>X]/DK1W#7:Z]?-&(]W? IE!<:HQ&EUN&AKM_[0^%*L#TY M"VCM9!$0'8@"_@?>C=@E2#@$,S#(A#P4.L VZZJJ06($RZ1.P9=IT/24."0G M$XF<8LCZ(&,%[-"R(PAN5*5II#_8''#4$ZIT 8[4" MQ3B)R:2!Q_2QM.9% [P$GP[7CKQ$]^@(QO\/ P@1)(:7C*-OE_W16%/@ M[+$UU]SR"0P'SE6X64D.4$1;2' 78(.23J U1,9&B;.UEXKM0K6&2\%&8!ID ME6GW3F2&5O -(M%#[>1] (F]1K)$H]_Z<;D$$%XU":#N109,P'3<8W3>AY#P:Y,+[HT^S%X.K]IN)P2SJKT 3Q>S0XZF)G MD'7 ;F3;^7?!A-\8^?B/)MN8M>HMNHGK-3)33<1$B4+=;UQL)#V$3U8FP'5? M@4/G5:"+ <%K59%PK4L 4H!R9:S8CM0X3T$UG%#V@$B,9]U &T<!VU5B#:"%)D--'Z0+J2HT&^J/4^CHS/ L@O/LHM!E@47,!6H M9@FH+U*#[WT)T@NAI/GR- X>W*R?@SL0&$0' (2RZT6_Q9(LP0U00I8#]Q MNP*GD!T#M^4/XL$*$1UNA QE]E&X#RDN\#'!(2G R4&_9WWK M0#T*F ', .:MIHA)1QU7:\LUK1WU[&#BV)Y=D,V[*)!U8PXE[E(AO(/W063H M>H$MV55:UA6HXH\E2!/)MP/!NR_O/EYVW)<#U^0C@0*:]DH!?HT)O*P4R$S7 M[[K^>-6N(W$[@4(*K@"&QUE5H,I(&1H.4:9[O]5O N. '+,7EM ,06*$2Z% M<&I2]/!/@(@%^B&1N9I#>3+!,^UT6)KBNU :#Y8.UMOE1#=R)%L+*O1B<"\ M) @A=WT#2_0 ,IELGC\ /AJM*]Y2\(-NS]#OV@Q&2V>TU+/9LDL&H_'^0^ M'R7/C=(YDI:QVBC"$3L33>$& <13/DF#KQ0]M?4%R MU-W\GN?"; X,X3098*& OV$B>16&T^O;BB"<=R <.PBG,XL<--6]|CSP!ZRZ M#3@*]5 UFRW%-8Z#?$ACF- $*F3*&'G\1DM+$F1K!N@<_ @RMR@&%2/][:FIT M? YS/\JTD_^L;=3GXMP^RGUEU:!'V0H[$*&+O&P4'YF4+S,\6&J-\+.WAOV0Q MFAF.XO>GD]@!283+#O491(JXSB.Y(W-.880C'B\]P2?(" 9D.E.'Z@V:8=P(MU1OZ!9C@;H]6J0TO:? ZE#2POOWQNLUC&("#K6 K;]3M5H<%X#+4LX])K\D = MBNNJ)N?8+HF&3F*@ MTLZGH^ESCW4T8S:!>@@OT@-SX$X]I!R1?=&EL/>B+.W\]%]: YZ7V#<;,G/$ M#SFV-_L=$XX"9&L+BALBTE5=5)E9&8])3<2T^2%281*88,71/X =LXl=LX' ML?/1;_A4= RNVX^.=K/0">CSQ@(?96>@\0%#O_L"HK<2X;N-XJ#NJ) B(-ZF MV,*FDGV0;?RR?9!LI6$0\F%R@O-M0)UM2!C703H1; PXYP6_ Q?D+_2,]A(V MZ7H-!A;C/FGCD;7I!5A>;\$>F,0PA1Q5N3'?[AVB/>:(7;>S^A%AJP9X1C19 M/JG9? NI8.BP"R#5.E+5FPYE;3"X@,D_KZM0A<\3^2.EXR1!S8M0258^@%AONVV_J;7 =!F'7 *7,AVKR*7=9&7@15FQ+_P //%[(I-+[@),4 MW@@3L.8QV4GWG"!NH:S M$.N5O[@^VBUT\NX,#3G[?"F3:D&A[JE4Y\T#(M<*!!Y%=9.5B#F#)03(W?C=9 &.U@%Y$;U%(Z1YCJ[#$,2@ X&)BTMV (7.[6 M)LN04\E H MU"FQ0 B,7Z.R##$K@!:G;M)-C#O @L,D @81 09MA12/)D-2>+6RU+.#BB)BXW$=4\#)9!I_Q-FD%_&:PA, 0PZJ1 M7VVFN$HI[CG0:L,*HP";O??GQXH8Z0Q^PV6.DG0*U# 58 $[XFK8S&3IF(U= M.[4F6U+M)#6L)F74U*$? &31$C_0@D0P#MC4>MWTCXT'K>N'1U> MN=^^]FUW<3]QX/,2@ I0N;G(@II+%:-T@0K,)%0?CQ$)*0><2M0+F3W,ZH,7Y->L"NL M0/V#0L!1M$A%/M9)RE($"[:E/2#>ZH32/2SL;B0&VYQOA= U(<[J5 +N3S]16 M1 IP# !7V""!H@12DXM0C=A08-1+%^I1J(F_G9$JA^P4R7@F (@P.[XB76^% MYM^QKRT/#Z1%=WJQ'[U"9J.5-*=M(@L:.&C6Y[\E4.D^,FB80N M/Q9D&. 7-O- UMC9":%TE2I594NA0RV$1WT%]1'$C)&'Q)\@4;"4FGJ@H'A9P MV@8UR-P&:4'%&E$QV=VR4RN&_+(@"7[L LE8/0GJTU'1)MB ZO.+*$"F M*AVQC^N6S-$#O&&L@__"- AQ3>KU4(8/J?;*4*T65'N\/I,VQ/H"VU?/:-[FX M,QMWW!X!;4@?N[$0=;5+3WW4'7P4-& MZ0%%3NY+A<@"ZOWRX&HOOKE*WL_LQ87[]/90@[-G+%XNH_%R"I^F\3B:QXL^ M3<_F<;1($C:,];-I F.3Z7FT',]QUGP>Q;/S08,:-&+&CS.H5RY_\+2@=7CY M!ZRJW;.EA.L"^V^3X7MD'BVC))D MR>+H?+9@G\GMG)]'YY-SMCB/QK-DD")2Y'D(8JH1F'"@=GWR1097/XH13[I M,O? '_Z 39'W8,>KO0!-0/V.U"H@2K%&_.,36"I>!DC+4@.QK/0/F/+Q3B:G2]02F&Q113/K4 M:7M^X\$WF3?OQ%[@\0\NMUQM?H"]/[/]+

CCZDN@7=+2Y9F)^9L8_]; 2+68G3)E?S3%?ZFI'OU2SJNJZ*N@C)M6$P@'P M'N^"NB^X@? MHC? 5!+ P04 " #Z@0U9!KBXR@T$ "A"@ &0 'AL M+W=O+NBNU#<1I M@VU(%R.7[6'8 RW1-A&)=$DZ3O;K=T@YBK,Y1CKTQ3XDS 7[>*@SW"A]9Y;< M6WAH&VE&P=+:U*C6MA&23S68==LR 3CAC=], AH\;5R)Q=*ZC<%XN&(+?LWM[6]J M<37HO=2BY=((0)4'S^2@XI2>3W.E[A=\%WY@=&5PE,Z7NW.*7>A2$+B'>\,HZ M#PS_[OD9;QKG"-/XMO49]"&=X:[\Y/W!E"MC57MUA@S:(7L_MG#%H<=@R)\O2#;&D0^ M[RZ0S_(SLVP\U&H#VFFC-R?X4KTU)B>X(C:CP5:&?'ORG+@<)/<*87D3(J__M68>5K.&ZHPG4'*[%0HJY])BT<%I5:BVMD N8JD94@ALXNF&SAIN/PX'%E)SC M0;4-/^G"1Z^$5^"KDG9IX(NL>?W2?H"E]/5$3_5_HH,.?UW+8XA# E$8)0?\ MQ3T^L?<7\'#'0%??OO(ZZV2_M>NH$[-B%1\%V#*&ZWL>C#^\HUGXZ4!N29]; M]J@3]]27##'RQ, M&E7=_;6ONH/Q]U>'!/">/B,$=L9UQ!3OQ/#T;UDZUI87G^$H],G:2*;AM?8 MY7V"[X$6!0F+!*6$AB2C.=S*V7_T,DKR*((T)6D2H6Z4E*0(,V>5982F)1Q M.NV13K\;:9BR1Y^!PQ@W]1H3NQ .4Q36=<7:(#X8^$="?(7F3%=+GV_-[_$] M7N'K:H$_X MO,&$+TQ(G#KCTSPE29S!!5^PYEF%I@6)H@(H*=,<+NT2XV8E M*>,2\I*$:70([:O'_ L>M/\GL =C_$A@O[2K1CUR#AO\BG4M-^.2SX5UD,;H MCQ;40>JO:O@&(I+289E!E"?8 >& 24@HB;,0(NR*.$RV+'QX5T0T^@2T.WP/ M11Z2M,Q=(Z&SG- L.41.WI.3OYF<%Y5\WJGD3!G[5IX.AMO7\U2(]R[7P[H MJ;L6#Z^<>%(IC_2"T;?(%^NK1$UAPHC:)PHT+_+252^?>(R1:X+E/*D(!2; M J4BQD9*/ UQ2?$\@RG71DG)&WS(&N:<5!XP&F;D*$]@24X2BBG2F$04[P'>MARPLX)O5VQX@H,ZY7N(4YK%7_@]@=HH=&&%SE]6U)7D809R3.-K/_&!G;&BY M7OCAR(!_WKH)HM_MYZ_3;NQX5N^&MZ],+P1^;QH^1]/P.,=G37<#4;>P;N6' MD)FR.-)XT67/M5/\[G"S]9VX0+T4^GX'U!+ P04 " #Z@0U91=UC8',# M #Q" &0 'AL+W=O3'" [24QM!Z;[Z_7[SMT^'NVE>M ;1 ./>5;HL;,O9GOMNCK>8"[TE=QB03LKJ7)A:*K6KMXJM%$E%RC.7>U[/S45:,)-1M7:K)B-9FBPM%:!+O-%KNMX8 MN^!.1ENQQ@6:^<VMHIC;2DG2' N=R@(4KL;,U+^>A19? ;ZEN-=']8[">+*5\ ML),/R=CQK$&886RL!$&_'M)F8S=@8.)+@296:^ROT';/R)K+Q89KKZPKI&1@2.2VUDW1#)@CPMZK]X..)P M1!AX9PB\(?#*[EI19>5;8<1DI.0>E$63-#NH7*W89%Q:V*0LC*+=E'AF\ILTM"!O>PUSH#:N^\,YIF>Y$AH71#$21P,=BA]KD=@$Z=V*9H>Z.7$/JK1 W;E3- M:E7\C*H>?)&%V6AX5R28_)OODMFM[?Q@^XQ?%/BI+*X@\!APCX<7Y 5M+()* M7GA%AIJ_TZY5[/#TVO[>]IU5L0X=NAX:%0[=:O7O@I[\T%V\+6MO"2],GI M]#S+S<5]7"'CP9FF8P?_CSER$55IQVA6&,.:^C<%Z),4H-)%Z89'6Q1Q CO ME=2Z^7[&'69 EP;<%W99.G?F!P/.WX7;D2JX)O(2H2Y0A(‘GXE**?@@LR0M MUO">+I6G6;,Y3?ZB8T$YBE*;.B(V"L]"4RV\A-X@8#P(:/3]QO8#[_,V9T0%' M-8H_X(M0#W0CWI1%0B7/N^!#Q,+(8WXO:DD__Y\0BW)II!$9])@?!"P8#LZ2 MGA"+C53FI1VJ_"BEL,"X5*E)R?-.T"6GU58J08=V)BO;PFXGZM()#MBPQOD? M/C>O0\N<0[>"A"SR^W!7&?<2?(IYPXCUAN?BTW(;:)\-_0C>8HSY$A4$?E40 M 72F.Y-RX!'KJZ-?5D.#,UL,/18.AHO'P86\'A!'Q1#Y$?/XI6(X(/Y;,?3# M ?.]$Z7@#R)IMWF0ZM@S[CO<6#6X;DIJ&D'8. /X-25YAZUH1S5NFJV&F)9 M%]:N2.UJV\^G=1MI@M>/0KYVB8[PQ51O:M^Y("J&VP],7);-;6E--0BJ^&& MWB2H+(#V5Y(N\V9B%;2OG,D_4$L#!!0 (/]!#5GL(]=41P, 4(9 M >&PO=V]R:W-H965T2,K;3?NCT@[A;X,8ZZ2KIC,FO[TKW8IP_0"W*^WS[+.25IKL MI'K26T0#+P47>NIMC2FO?5^G6RR8OI0E"II92U4P0ZJ:.^+14R#(*K@?!<'0 M+U@NO-G$C2W5;"(KPW.!2P6Z*@[F]G/D=/K#!5K*2\LDZ=]G4"ZP@Y)@: MR\#H\XP+Y-P2D8Q_&DZO2VF!AW:+_MG53K6LF,:%Y'_FF=E.O9$'&:Y9Q]-.MP !@%)P!1 XB<[C[1 M4WG+#)M-E-R!LM'$9@U7JD.3N%S837DPBF9SPIG9-VD0$O@ "RF>49E\Q1'L MH(8EVS/K]1[M1U],?$.)+'.+SU2OH:[O6'DU.CF.MOURK4N6XM2CAM"H MGM&:O7\7#H./9[0EG;;D'/OL<$-N<67@#Z<3'O'%P)S+].GO8Y+/DAZ7_$7R M#!7<;5TOD5(V1F?BMF]..V&00@W<6^ '8P)+E8LT+QD_L.ZQ9'OJ7*,;>-?" M1I)7%&0]&%) $/]I[9;1A(LO%!CXKTI#K5,*CHN,/&67-(/*CD1^.QT/HA1<0 MQ'XP\J.D-:Y@]"O\ F$_" +[(_O]NU$41A_?6*_S<\4RCGOX5#"^9FH%O>@$ MZZ!!M"R]!!FX@/ 'LH=+&O-*>:;<4/LNTWC-7RLDD2?@V2>MW7+>H4Z0>$]:E MBD]0C=\RM=]F^.UJEZ.PJAOUA, M=L$(2U[^$=>>S.S\+ MJ[O?-X6LJ"R[.X/!53])PLJ'[>Y:IE.,:]R M5OCK[A+/TS6"X-A/OZ/3NJ.^Z-Q3*L2P;&F]P^NY@+5QCU &E(+KF_I;K1[MXV[JJ TUO'X&OS*UR84&CFN"!I=7 PI4_>C4CI&EN^A7=_YEX&PO M=V]R:W-H965TT::LTT...FQ M7:#;($E;+!;[H,S0MI YO))\Y-\OI7$F[M8U4G1?$HXD4B2_CQ1]NF[UG9DC M6MC456/.!G-K%Z]&(U/,L99FV"ZPH9UIJVMIZ5//1F:A499>J:Y&/ B242U5 M,QB?^K5+/3YME[92#5Y],.NZEOK'*MV?38(!P\+5VHVMVYA-#Y=R!E>H_V\ MN-3T->]ME*K&QBV 8W3L\$0?E>RU!M=/^P!>%;[.C@XODMFWOW,>\FP0.(>P MPL(Z"Y+^K? "]\H9(?^V=H<|%;A*0!\]\"] MW]U%WWLTKOJ6[7H-UILN8$'ZK7)N=4XT"YMIV%>G9\1^M14C@!*[G4N.) M"["$B[8FT(WT>3NZD;<5FN/3D:7[G-:HV-H^[VSS'IA.X&/;V+F!MTV)Y;?ZM(_*S=Y8_,'O.#QK\?=D.000,>,"C _9$'[SP]L2!X UT\>T+K]..]FN[!]T1[T9W^T M5\K0B*'8M5.IJ<]+NXWO2#5PCU*;8XB'<7"2 M#'D.!S"(>PSBPQCLR[O6LIFAD]DV[PPFKKL#R9K%!3MMX3O%J[0!6#5S*A\&ZNIW2UE!9/93,/.8?*!%A4UTZ*C\U7E!G6A#,*ES_<- MZAJ._NS2Z'B$\&EIC95-Z8Q*"V^PP/H6-8C0ET_ F$5)SGB4PG/"/,@H_4GB M9,Y9*C)X3[ER@!V%QY"%G"5! ,$P"?]I:8OJ.:#E8]H0B<-8:;?,CVDKSECL M]_@P#.!"-@6UR$4,[QO+-MRZYU4^]DDXJ%@012YE XC\0UG1!PO'N8= M9[Y0O _,B$3*XBCIT.<4^:K;--WU-*Q,4=D'JH0A2W/^)*]$8W/37P/U)P[>MA^PF[EKT;N\6/4UVKS@QV?CPZA7GJ/#4%>>?[)DN81 M11R4;K!RI97%3*3**YL*%3PKU M!RY"JBL64Y7QB"5I3.1@&=U[TUJZE;[(4VHBOA1%Q$3H#0<1"[+024G$\CB&M_R]>#QYT4U&Q.Q7AQLE(;USW9G5/D?.0PHRI]9&44G=)G:^1$"P+7)..B=!Y M&#W%KGXL[^Z*)96W 3(0)#$98CD52YA27TL=::F+1N%/YFD?NT<[LV2->N8G M9D-.+AO;C97]:C^43[I9]/%X-]%_E!+&+PY4.*758)C2NZ>[*:G[L.W"3Z:W MK:4YUXMS^F&!VAV@_6E+ |KVPUW0_U09_PM02P,$% @ ^H$-64'6 &ULQ9UM;]LX%H7_ M"N$M%C- &ENOMKM1@#8BN5U,VR!I9S\L]H-]_XY06\]*[+- $I7R9K);%0R[B9;W39CUV)Y-PO(F3=`1Y4;]WG5]>9-MRG;3B M.B?%=K.)\S _>BG7V!KDC(]?N$E6]V7UQOCRXB%>B5M1?GZXSN6K\9ZR3#8B M+9(L);FX>SUZX[SB4[_:H=[B]T0\%0>_D^JC?,FRK]6+=\O7HTG5(K$6B(]" MQ/+'H[@2ZW5%DNWX3P,=[6-6.Q[^_DQG]8>7'^9+7(BK;/W/9%G>OQ[-1F0IM[N+MNKS)GOXNF@\45+Q%MB[J_Y.G9MO)B"RV19EMFIUE"S9)NOL9?VN^B(_= M/_ (#FZS@IO:P9T?V<%K=O!.W<%O=O!/W2%H=@A.W2%L=@C;.[A'=I@V.TSKM9.V^W3HU45S&EQ=Y]D3R;FM)WZ[\UOO+3.2J!44;M<_C61^Y67']2)$(>\ M)! .S59PF_XUW DF7Y'8G3I+=D=MDE29WR2),2)FL?;R/RRXM?R0LR M)L5]G(O"!W9B?_8IN?$F[2(1VG1Z32OGT:A;6/0MG$[+1(+27-TFB7#WO[8 M\6]N?Y3[I2176?HH\]IG/I/'4+)*TGA-JK^;ZD@QM/>ME5N-/]^*AW@A M7H_D\%*(_%&,+O_Z%R>< ,TD&B0L0L+H#A;6L&I,?+ST)]5_%^/'0RUT-VMM MP4&MTK+L[[/L6[-\6V:+K^1=46S%DD3;O.[Y1)YDRS-R6ROR[$ $57>Y>U4F M7]:"W(]%W*6L>\DD;23*_G?<3&_M39G]#B0L @)HSM8<)!UU_7\T&N) QF3M@V":CH*]C@*KCCYL-U]$7NGCXX/(XWH$O14K6=:51AE8:4-E@(1%2[@-.C)P M6@I AN,@F*: <*^ T*] &_$HTJT@=WFVJ3[).I>%N*SWRGMR55=Z(C\C]-MBMO5U6XGA3%$+^6Y)\3>30*S!A@HD[/3!WBR8S4,]%\%WLYDW=8*YOAGM;C9U M)X'3/K;[FSDS)W"=E@(XZ)-J29ONDS:U)JVI=PMR'?1X9Y===O:;/!?F<=V* M&IJ2:>?(\#U?2CNME"!CTM-B,F1,/NVH(Q"WP_V,;6\S?9YFYV6MQNO$,GC M+G5OU0+4.TX7\AC,% MT[(WWV=OWE-:WPEYE-5]7]T1EK+*^B",!YV5-#1\VZ7-)T9BM8(&96>&I4A MHW)#U+!5H&O)-H.02-R.T1]?0?>$], 92I.K=Y^3:NBAH3ZXE6#IICM!!N1%'FR:*4*=WY+) 31-9L MO]SW;..6IFLU4EEOLOF35)W?<2,F.?LO3EYUM[OP%U]*"T M*$JC4!J#TCB*ILM).8F.W4KL]NB,*LYSV(S' I0$Q%*BZTZG0]P,Y)27<3 MM]UQ@-JD9UJYCH[=@1?H;%'&YQ])"V"TJC3]1)E(=GU+Z%1.8JFS^]1+J=K M=SE/'&:>1?56I(O[39Q_M8XX]IA#-0.E15 :A=(8E,91-%U9RD!U[0:J#XPXM=O)@ 3C=4\3VE1##-K-6A6G"M"\&]V,XZK/I65&NI&MW)7_X>#^MYK2W8G & MD;0(2J-0&H/2.(JF:TT9HVZ?,0JM1.S1!FL*ZI9";11*8VYW;J(SFW;J&HZ*8MJJM%^;"NW0K?EO3VD0GJHD]I$91&H30&I7$431>@W2H%CSGV:(-OH)MT^FMWUATE(FA4"J4Q*(VC:+I:E/WI#;<_[0.3'3A8 M$(ZI4Y]Z[7E[T*@42F-0&D?1=$$HY]7(^?HFBZ+)3MZMEM M5W15 _5DH:0(2]_-33LOGX2&)P,@HW(435>+%4#]5NAM A*HPVM M77%-VA>)H5$YBJ8+0CFI7H^3>EI58[B3U5ZQ0#U6*"V"TBB4QJ TCJ+IVE(F MK]G$(=M72@M@M*HUYU]&K;3#;TIWA#0/9)KY>-Z$!_7-F2<-@G)WH[!NH"ZME :A=(8 ME,91-/W!5\]U]7LFN'[_(&(G#]5/0[-=Z#5LTK[R8]BD\[0IJ(UJ"!B:>P!?M>:._^W1L%GW/:HPW.D].]\FDXKXL,V\UGWSOPY!SV#R!YF<-(,LQDGW>,N@:D;E)T9ET*C<$-5UO*//MO$/'@?9.]<24H)] M[Q0\>^,&"P+J$4)%$IC4!I'T70)*B?1MSN)Z!H :C-":1&41AN:UA7-4-7M!+49431=+((JF"T)Y@$[D]OB^ M$>PI^Y[Q"VHN0FD1E$:A- :E<11-%Z!R+\'V[8XD>OZ >)I0606D42F-0&F]H MK5G/QYVFZ2O3T^\O/8TSMGU$1<\4+YD8/> M\E\#]-Q4.W"P;(QS4^=AVWB#1J5'HD[:-U%"HW(434^U\EB#X1ZKNOSQW F9 M%V^ FJU!]VF>[8=]00/2_H ,&I"C:'JFE5T;]#ZE&=#= W$ITLA %N=[*E]4C M!XW9A;JR0=>I# Q70R)H5&J(.@^Z=[8S:%2.HNEY5MYM8/=N?T+A4/NX _4# MU+:%TB(HC4)I#$KC*]JNOH,%@- 30.W P.:+!K@)DG+(YG[>O[$&CLB-1IZVI M/!P554^U\ER#X9[KJ:4#U'R%T]*@_VYZ;$#6'Y"C NJ95F9JT'I_M0FE18+AO9AUIV]0:%AF".N&H>%V>518/=/*M0SLKN6)Q4-[P:CA-@/4SH32 M(BB-0FD,2N,HFBXVY7D&:,_3#APL&ZCG":71P.@K>NU5Z!@T*D?1]*4#E>=9 M_LA<3&M%82LX- M#7V1J6A88*I(2]#1N4HFIYEY4.&=A\247B<9E/8&S)8(M";W:$T"J4Q*(VC M:+KB"4*YI:'=-?Z3T M@/J>4%H$I5$HC4%IO*&9711=%,K,#.UF9GNT,68?:E]":1&41]$T!J7QL#OI MM797CLS+"0^6,^\U.1_E<5]U"A_OR.Y5F525QX>L% 5YEY99M9S21FZ9H/ M6GM@US.'^IY0&H72)3&4331=4LI-#>UN:B2^E$3IZHQ\S)-5DL9K4OWW>+2M MHWR@QFK8]21ITRK0T*CTQ*@,&I6C:'K*E:T;]MBJ(DVR?+<>FU@2=^+Z3?]A M[2V@)BF4%D%I%$IC4!I'T73I*),T[%LE7O86[]*BS+>[E2"9C&7K([JK%(43 MPP%V98\[6]0]O-*8U:1]$T/4R51SKM6W:^I0=9@0@9]"0W<2G.9!$25RL- MVT]FIX85T2?G[64 KD(:++*W>&CN3PO*H$$YBJ8G57F<4[O'>9UGT*R&6O>YN M@7=%L:UOGJW./'2;ND8PIK3K&@$0SSM[L\V96]*4./>RB-0FD, M2N,HFBX199!.[09IY[@ _.!2.E4Z[8NL_4ZS@OR(/+=RJW5$JXO MR-BRC&O3B/FA]WP^G;7&?K0_ ' MCKH'JL]J=ZKZ),]45B(W*L?K=MO.>7L]BM[$P=+!VI\0FD,2N,HFBX=98].M[?:H3@35P"1KBVB:5[>L29DDV?)LMV!TH?5!F6Z5'*Q#?>IZTO:V##WWF7:- M0=?U_/8ML!$T*FUHCJN'/>_$9="X'$7::6559W/_EV2B[MJ =I7:IS1N//^E?.J<@SO4^<5]l\?*_SEQ8/L?M[':^2I) M"[(6=S+4Y'PJ$RA[H/O]BS][D- OB'S)RC+:U+ _>BW@\]FH#^?>[3)YD-R^] M $]9_K7^.)?_!U!+ P04 " #Z@0U9R7N8$* !O!P &0 'AL+W=O M]W1<55GHK2E?6 G!N015U \^+W0H3YZJ)/9N*M-.&-HH3!5"#95!46?VZ!\O7(\9WG@P=2+I4Y<-.DQB7,0,WKJ= [MV?)205, M$LZ0@&+DW/C7X]C4VX+0!-9R8XV,DP7GCV;S.1\YGA$$%#)E&+!^K& ,E!HB M+>-WQ^GTKS3 S?4$^R?K77M98EC3G^07"U'SM!!.12XH>]!K^^@\Q,9OHQ3 M:7 1NJOU')0U4O&] VL%%6'M$$S]U?=@ ^.$!0- !@O\%##K P!IME5E;$ZQP MF@B^1L)4:S:SL+VQ:.V&,)/B3 E]2S1.I5^Y N2C#^B;*#$C?W':7):C69LK MX@6:D9*1@F28*7239:QABK 233DE&0&IT=VI1 ^0 5GA!05T-@&%"97G^GX^ MFZ"SM=>)[I1FV\8WZ_3=MQ[" _J^.,P"#;SW*/"!<]\?!P^@4S#?0L?:,-= MW:F^74'?KL#RA0?X>I^B][G/4TL26Q+S/UJE07@U],+$76UJWRT+X]B/KOJR M+8V#7N@]J,9:0BGD.HD5L$:G\ ,>]@6(7_N$'F4R$^1:UCB#D:-'A 2Q B=] M]\:/O8 [HC@1V9;IL#<=GB*8EB3:Z+@_ ''K#\$4PNV6A[\7^Y?Y@HEYC=%3C MG"U>$DYV&S-V^Z]L M^@]02P,$% @ ^H$-68\L#[OY @)08 !D !X;"]W;W)K&ULC95M;YLP$,>_BH7VHI6V @:2IDJ0VD33-FUKU*C;:.P<.ML&IL9INDW:>?;2A*$QKM#?CA_N??G;ECOA?R254 &CW7C*N%5VG=W/B^RBJH MB;H2#7"S4PA9$VVFLO15(X'D3E0S'P?!O*\)Y5XZ=VMKF*'WNO! RTK;!3^=-Z2$#>C'9BW-S!^\Y+0&KJC@2$*\&[#FV5B M[9W!+PI[=3!&-I*M$$]VC5?>($% @:9MAZ(>>U"8Q91P;C3^_3&XZTPL/Q MJ_?/+G83RY8H6 KVF^:Z6GC7'LJA"W3#V+_!?IX'& FF')/M.]M P]EK=*B M[L6&H*:\>Y/G/@\'@C!^1X![?Y?0=0+(A=H1^;"6A%-TKD4>R2MM?%F!RXW M3FVBH=S>XD9+LTN-3J<_A084HD_H7I:$T[^D2R[/T::[5R0*M*$EIP7-"-?H M-LM$RS7E)5H+1C,*RJC[5876Y(5L&:"+%6A"F;HTFX^:%;KX<#GWM0&VQ_I9 M#W?7P>%WX+ZU_I%P4>$ QR/R)?GY2O(C#QT\NBMW#=I&G*%AUQAYR]^QJ\# M*" RUJQZ1G)HETR2.M)H/9&^)H(([.$G^'DK"S>)T^.3@W3*XQOC["&S&;)=-QN'B B\ "W>L*Y!A3 M?'+89#:+9D=(IU;369#@<:9D8$K.,AU_QO_1LI72W/$89W)R9W&$$QP>@9Z:M39))''="I/Y!$=L&^H/(DG*%&!1&&%Q-C1_9-:5NHD7CZGHKM,D2;EB9/@[2 M&IC]0IC:[B>V50Q_AO0?4$L#!!0 (/]!#5ETVP(%J0(-(& 9 M>&PO=V]R:W-H965TI65-3MVB0GB57'SFP'VOWZV4D: 0&T& _#'>=\\YS@^F6R%?%4%@$9O M)>]ZA1:5[>NJY("2]*N107<[&1"ED2;JMC'+LEH=R939JU MI9Q-1*T9Y;"42-5E2>3[/3"QG3)\['P3/-"VP5W-JE(#BO0+]52FIG;NZ2T M!*ZHX$A"-G7NO-MY;..;@%\4MFIGC&PF:R%>[>1;.G6P!0(&B:8.O/QM8 Z, M62.#\:?S=/I'6N'N^./]2Y.[R65-%,P%^TU374R=L8-2R$C-]+/8?H4NG\CZM)8*IYA=MNUCLH*166I2=V!"4E+?_Y*VKPX["T\(_$[@_Z\@Z 1!DVA+UJ2U M(]K),E)LD;31QLT.FMHT:I,-Y?845UJ:76IT>O93:$ >^HR>9$XX_4O:XO(4MK=IS12)#*YISFM&$<(WNDD347%.>HZ5@-*&@C-]LRAI2)!F7B]EEBX6H EE MZM)LOJP6Z.+3Y<35!M@^UDTZN/L6SC\!]WFURC 5\'2GA$/C\O7T!BY%XC M#_:EKBE37RN_KY7?^(4G_![*BHEW +0U[[=]BK0&#AG5ZEANK5GA9@[.LSZ" R*1H*%/8F.M:F2VG. M^!AF/'C+QB,GX]AN_X/(G'*%&&1&B:]')EW9=M!V MHD75-*&UT*:E-N _:M58O 6\)W 49Z,D7%RQ_E/ M_ E0S!W/!044@OD4;LF-D2W+, M%+K.G;6^!B$Y8T!U'Z78,_ - M1S!FNQ&*3R/PDC3M^5F.P*))Y/?\9$-8X(>!G_1LC\"FT\1+QUW'G>OXK.MW M.">4*-T.+A_@"CUH66[5-=ZWONM?Z5O?Z,)=P@3ZPG-:%Z9BW;4&LL5 /8SE)!B49 M^W$2] MB")OZDT'NLB',]\(T[.-6([A)D.HOH9<9]^2GG)W7.DSTPY-"8(P /U\R_5)UT[.!MU-;/$'4$L#!!0 (/]!#5FY MEV^) P, #,+ 9 >&PO=V]R:W-H965TOV8=H'!RX!%3"U3=+^^]F&TB0E+%.C M?0'[?,]SY\?FN,&:T <6 7#TE"89&VH1YWE?UUD008K9,NA9FHOAKMX M&7%IT+U!CI'

0L9ADB,)BJ%V:_4E7^BN"S&LV<88R9W, M"7F0DYMPJ!DR(4@@X)(!B]<*1I DDDBD\5AQ:G5("=PX>@%L!7*5]*992VL<< M>P.*UHA*;\$F!^]X%%H('&?R8LTX%:NQP"O&^& +'2&1IA%'?5$X\CS!X[CA*'O\,0+G)P*[/W.1R,33.0@@:\'X[WOT:?M*.-ZT6 EU(6>MIO>AY9:4R?BVR_GF',T@*&C. M8Q!W\1J2\(R3,U%0I.VYL[&*I@4-(E%CP@[R8Q:0(N--%[(.Z;J0LNJN/-NTMN[V!OMH\I;=>9L\US&TO_ZV7:SH]:]MKW!#1NK"=;::])]Q3R]I)G.0Y@[(G_ M!P.Z LW[],%TC2\M0CNUT$ZKT"-"8?DVQ\3++)D;KZQD\|!;I4[1=#ZB3*&EI;ZP[O4C4V._8KLS\R&^R^V1^7#=PK?=E.WF*Z MC#.&$EB(4,9Y3V1,RQ:MG"?ZJ9YB3KAH4-0P$ETM4.D@UA=$M!751 :H^V3O M#U!+ P04 " #Z@0U9:?@O(>D% #A& &0 'AL+W=OB:,L/03\P MTMEF*XDN2=G-L!^_(^W(+Y*II,D")-;+O3QW).\>7\Y64GW50<=V1"\CQS52JC!N\5;.N7BC@B5/*TBX+@GXWXR)OC<__,Z.6\%%A&D$!MK@N/' M$BX@3:TEQ/%M8[15^K2*N]?WUJ]<\!C,+==P(=_16+FYZUABR0PY45]WLO5 M'[)*++V8IEJ]IY>L-K)!B\2%-C+:*"_"3.3K3_Y]DX@=!1H>46 ;!7:HT#NB M$&X4PH9=2@N#Y?<\&9DBNBK#1:LQY7?=KH_"M0#TS M_DL:([R[!9"7FY"X2/4O^/[C]25Y^>*7LZY!?-9+-lY@N5AC84>PO"GR#@F#-F$! MZ]6H7_K5+R%&=>K4PWWU+F:E3 TK4\.RX7-OS87D"9E#:9[3. O'P[/N:&KF(1@:RNW!#DO882-L7+;D"VX>0/!2 MFSJ4:R/1KO=AR,+P &15C$6#050/L5="['DAOI4YW.$^4E^QL%T5>:*; 4_\ M)F_HY[HH>Q7X42*:#\Z"+,JU^\-1RP*ZP.-RD"C'|I"#XCW(JI"JMU&-7*^ M;=0OH??]T*5:2,6Q.DSD>H%2[!$\CX%@MR&Q@D08DDJMZ\#W*Z"'"]@^B3WM@Q+PX'& 9PK!D2+'=IB*?S#3QA!=0)PY\#Z#52='CD((]*|",O^@ 2\+2I'HXJCFD0C*+^Z+#65 4'K! 2 M\,@AI,&VQP4/@7E_Y&H[4U'+Z@6/X;R%'%"#6D)K /-/M! \6MM-G\G?K3;[DK_G_:Z,=O8N6KD M/*V+;MLK]?77:O,JUXS\2ZXL]D\6>QMITZ*PI?Y/6$)*J'IIO4X?O:3/9&T__M1=OV3OW-^ >7=M)@]DB/IP]M\C6"WBY/MVV>^OO\]5PJ2@H/L7W6OU MT8O^3-;V<[#E" 2QA*&)T348O&&?VS=A?>*J["$<]7L1'1PN>55PT!NRT9&N M3;=D@_K9Q@-6W%L-F']C>)T _>F,\D[7]5&T9#GTDO6DH GYKOEU1I3BX*Q@;M50I!51!W!0V.)88M':)^/O0DTCQI,.Z+O$]=#IFK5V3_+65SJ&WHZY9XT M>/#$5^HN[#!FK\A^S%N2QAI(H6AD:U^],K&C9)]9RK;_9$N&MF)\,84M^E:9$%HIDCA=E:UXT=;OH!0J(<,,CS(O(R@%3,'/!7 5@9,]<$\@1MD#=%#N6,R'$,.^UI, D+F2UX?D<4Q^"'6*)T(M'(YUT#FD"8G1IYDW*P'6Z*<>A&] M'G8)P/7&$KD -ZU,[SKD']L6W _>1(@%HGI9[8&&K+V.]P\ ] 2Z1UP=9 - M2P1@FU Y-GM8(D?M@+(?P-3!7?UAQWXL +-5*9"6A"WN%,@LX=26\DMQB@0UXYM#4+T1)U(A*22U.B(9A!8/> MN):HJD[.G_ N-WG1F6;Y+"%-T% MG0$65+6>IZ]OC%RX"?.M-$9F[G(.'%-G!?#]5$IS?V,=E/_5&^\4$L#!!0 M (/]!#5E<^RUPN0@ !U> 9 >&PO=V]R:W-H965TRV'ZI^F.!QC(K!';"3 M5/WQ'3 O)L9CHSW=5;2Q"?>Y,V8.%X;CN7Q)^% IG+&,O"ZB.+WJS+-L>=`M MIL&<+6AZGBQ9+/XR2_B"9N(M?^ZF2\[HM A:1%U-40;=!0WCSO5EL6W"KR^3 M51:%,9MPDJX6"\K?;EF4O%QUU,[[AH?P>9[E&[K7ETOZS!Y9]GDYX>)==TN9 MA0&L6IV2\YF5YT;]<+71GE L<=O(7M)=UZ3O^M/2?)7 L:=7G64O$4L8D&6 M(ZCXM69W+(IRDFC'WR6TL\V9!^Z^?Z]=;1>=%9YYHRNZ2Z/=PFLVO,J,.F;(9M74790_+BL+)#>LX+DB@M_B,R8'QJ!E5Y/W+*R2';@[T9=)M14@PQ@V;T^I(G+X3G^PM>_]6IT6\%%EA MG$QJ,>/BKZ&(RZY_23)&>N1'\L!21GDP)S2>$C% ( ]4<%H,^YMGSIB049:>MDB,.BW+D8DGCD*7D>X-E-(Q2 M\HF]9BL: 2"R'WXTR/?? G#9S42?\I9U@[+]QJ;!VH'V]\A]$F?SE)CQE$T; MXFUY .!8O"N/5S4)H"L.QO:(.]'Y%:3$KU5=$X4]8QHBM9O:-"=//S7(!A M>A'>:_ H\CV6/STE/.9C=E(??4R["#S?>.CU[4/^/M+VN\\V7977FXP8)MWYO" MO1.R:\.#C?=/R%X.&T4R#'O;$T.OX/4^!8FL4K1F8\60CQOAD7U4^'??(G-9^SE%OJ.KC>DY[M?[>AINAJK[Z;L[^;.E)U357K^[G(+GA(F ^"U09Z?SO0^]*!?A,MY_2?MP4C M?]RSQ1/C?S:-7RFC[?A%P@PDS$3"+"3,1L(<),Q%PCPDS ?!:K+2M[+2I;*: M\"1@;)!N"L@CC=@9N:?9BH?9V_8:L[RO2F:[%X]-\l/F:BL_),Q PDQ|[TP^ M4.?#8?T\;B%3VDB8@X2Y^Q^&VE/R?_6/PT,F]4&PFF0&6\D,)5(RF@K!23, M0,),),Q"PFPDS$"'7"3,0\)\$*PFJ^%65D.IK'Y]B1E/Y^&23!@/1(6ASZO)M6%)*6V$A80829B)A%A)F(V$.$N8B81X2YF]@JKI3)95S11U7MY(USRVFAD= MN?O?F0TTV)!%R3*_,)-6)BFRK8"0_ ,),)Y$P"PFSD3 '"7.1, \)\T&PFLK& M6Y6-O^8L2TBH):5()/:(@$7<^I7"$MDI*X<#!$K)BP_L1IG,X8;U24E-Q:44B: :694)H%I=E0F@.EN5";5]+THXH" M9:TKJK(3]'(_@17&HB35!'7A)K$?2MKN6>_ #P3"A"2THS3[>? >:(T(72/"C-1'!JJF,"NI1I*AJ0GR M;VYX3=G?JWRKN3XZ;0'U*4!!I1F0FD6E&9#:0Z4YD)I'I3FHVAU'5;N!U5N M?_@EB7_D;+:*I_0I8N(2<;8[>7%&'EC PG6C2?NV1\KT'?R)K26%-3Q *59 M4)H-I3E0F@NE>5":CZ+5)54Y'U2Y]<&-&M"L)I1F06DV ME.9 :2Z4YD%I/HI6EU3ED%"_JD5"GJVURJ F"77?8Z!K>Y(UH4DM*,XOPL.-*D+1T7E0FH^BU:]6KDN-+GKXH:84?)$(V(E2?X%77$9. WSR\#-MW'2 MI)>"#$WNP0#7+7FVUE]$ MVC1*FFP]'IK0@M+LX\UWH E=*.Y#TGP4K:Z;RG:AR6T7)]KR M ^UU!#5G0&DFE&9!;3:4YD!I+I3F06D^BE979V7AT+[JDA#R:*VU"#5O0&DF ME&;5M-V"I6F#O;LL&YK5:E^2A:73^5/4.3VS/:5+?'51 (M]1"+L51>T: F#2C-@-),*,V"TFPHS8'27"C-@])\%*VNR,KZHQ@-(,*,V$TBPHS8;2'"C-A=(*,U'T>K*]WP= MFMS7@:Y;4-,'E&:4M-TGV7NSBUG1TFK?=5WK#;<7AUMF-. ZHWVG\[T YX M4)J/HM5'+F6IT,26"H/-&\]7[&(:@:(5(SP\8Z;+O_K,N/:D1Y.>8? MG9QO7(XL _BEVS9D2*%,5!HUI(C>GV8FA=TYGG+S? MB%SUL&:Z,.=%046-U/BTGCI:9XZ=[W%OZZ/#H^/M9"!92]JEH&]$2@U,V=- M:B(WJEGGK.;\M%(O7O:U@?H'X+75L36B?7+970TL51+4)@"JI:!JA$H-3,^ MC5TB-W?9Z:9W3)3HTW\8%?;>YY:+T:MJ:8O^TMTR.%)0D*J1J#4S$@U2XG< M,&4SWMW0UR93:XR@W"3:A1AQ.DV2[6$0%)SXF1(H4S.,C4XB-SOYP!D8*IJ) M+&PD'A]'V]& LA&;Z>0HFFQ\R.P1Z2Y1^0&']:1ZPNS]Q=0]M&I[=D_*:AI MUJE-]H7R(X@%UL0"NXG%#_QYS^T)0U66 SJFH&J$2@U,VL-5O >L/(G M_MA3J^M@3*U@O'8QWLQCI>U1(4Y^!=G#.UQ0&*<_Q,"92I>1&]QCFQ&^?<+1@B M@E:SO)YQ="=6*A=7073+!5\]#ZF6@JIEH&H$2LV.69.P0GAKVNFP US?Q,"92IF5;OOB,W M/W%5S(: !C!QX$4R^Z8WH#"F4S,NHK:.;D!IC*@&*93VSNY >4K?J8$RM1,2X.3V/-J&-

>P!@I+.K7M$68[M"U!2XN5)H#S-*#0FB?=@$I]![7;&I?09A0:H21NA.(K.;K.9PO*"K^!S[TRP:&"$A90M0Q4C4"IF0=)[S$RWT]8W!+!T>[" MCFBZVU]! 8N7)X'R-*/0?"7Y#K[R\0>#A,(9]UH&IPT*9T#5,E U J5F'CT: MSB0>< ;XZ11NR^!# ?3.)U"U+-F]Z,;Z_!$HUW7(P]Y3_DHF'MOG,=9HUIQU MK) 1MOET\\S'S^V3#K<^OXQ.TLCR>1;=D/43';7\^@&3UU0\YE6-"O:@K$;'M1VK3O?J9C>LWDB_:9PS>JVD!+]N7"T;G3#0+J.\?N*H[W9O&8//DS/,_%!+ M P04 " #Z@0U94Q8/D'80^T3<=" M)=&CZ*09^O&C9-4T;?F:DID^-)9T[^&Y1S)Y="V-'KGX6BP9D^A;EN;%=6\IMY>]5Y6GS)\5*\'HO$K*4@ [?NOE-.E[XU&U[TZ, M1WPMTR1G=P(5ZRRCXNF&I?SONA?T?NSXE-PO9;G#&X]6])Y-F/RRNA-JR]NB MS),Y47"%I4_Z/'.M;OH=FZD#RKDQ6#+,DW2^7FW6HB=!(73G(#K M!+R?$!])".N$<#\A.I(0U0E1I9](H8XF*D^./W+)4(1>HEN>/S ADVG*4+FS0'?TB99;YC'"IA)=$"9IDA8O MU,$0$X(N?GXQ\J2B4X)ZLWKHF\W0^,C0(?K <[DLT)M\SN8-^;=P?@SD>T]&MK1:XAQ8W& 3\?9U?HM#_%6$?1TU\SDLG]!GD:G>6J8")Y+.OZ.\/+)LR\4_3J03'*B>G5\6*SMAU3\T^ M!1,/K#?^Y:<@]G]KTM$E&'$$9F@<;36.0(UO!)VG[F]R6BZH&*+O +=)'D MJ%A2-5KCEV*#V*\0RUGY8?P2XS"*PY'WL"L2.');D1R!&2+UMR+U09$^+QEZ M*V@^2XH91Y^%FM3 2PU$:WNIN00CCL ,%>.MBC&HXONB6"L-&9I3R9ID]/; MR@9S]::]:JXZ,M9+?-WHVW()NVT",^M:^8[!#>#K7 CVP&>5E347' 0='2S@T,($#]1V\G"* M1ERAF2)C+3(^;W6"\UMK![.Q6)|<\3'UTMX\@,TYM$3!]:VE@HE8+%*N^)A2 M:8L=P![[Y#[5YY]:J.S"",RF;[7:*P>P6>ZX6-6HNY-QOW'2MHLC,,NN*FBO M&+&TWZUBH\L0OMUV\41F%?7NK5Q#6#+V&VM4L?P[;:ZEBPR;^Y/N\YOJ]T)-A;NRQ4?4R]]2X#A6P+(?<&IK:6"B5BX+U=\ M3*FTL<R&.[JO&G77741@PNQC",PRZXJ M:.>-8<=ML;YJG--UV\41F%?7NK7WQK#W)JR8L7O.VJN\UMJ=W:OVQVENKLCK4K/J94VG[C,YO6V*YK M:1=&8#9=]J46&C1+YQH?MJ2'3;.R51B!.7;4(-3>-G34NX/^!%-5=N%$9A5 MUZJU0PUA8SAA><(%FK#96I2G7$U<]9T\^".]4^_J%(VX0C,%U3XV/-/'AG8^ MUBZ,G PSR\AYIN-9#"J,VOK"W/O?$C459!A*86=>3]^UI"+O"+SG-N)#)?^J45D__;?W]+2]D@5Z:WZ%& M3:X:>I:XWQ_N2V(71V#&7171+C2$7>A\)M$M%>)))70+H=<;7N6RL^K!3& 3[M5U$4[)<],/QUHBF0P+RZUJW]: C{4:L)]?,R$5;3]=-^KE,TX@K-?*A0>]IH MS'XNG-]6NQ-L+&Z@7?$Q]=)N.>K>SX536TMU=C_7%1]3*NV#(]@'=URI;]3= MJ2QJ7*GKP/A4((%Y=M5!&^D(-M+6RWF-8U&Y92"!F76M?.>19=@5.UC.ZQ&. M93KPXW"X?[=D&TA@SETUT?XU@OVKY8(>';K+<# ,8Q_OUVT92&!>;>OV=MX# MR9BXK]ZG*=*LK&?S2LAV[_:=G=?5FRJ>#M^*-FLOLD+U#*%BK5O[Q21,7F M'9K-AN2KZJV2*9>291?'):-S)LH =7S!E3&H-\H!MF\RC?\'4$L#!!0 (M /]!#5G0&1,$3 ((8$ 9 >&PO=V]R:W-H965T)/8E7[,7=W230K^ L MVD111:S8.[MSSISCG7&O,?;1-40>GI34;IPTWK=G:>]JAA2Z(l.2YI.%L0HJMAW:9NM82UA&D9)IGV2A5*'12%G%O:LO"K+P4F]86W$HIM,^7),UFG R2EXV9 M6#8^;*1ET>*2;LG?MU/+4;IEJ84B[8318&DQ3BX&9Y?#D!\3'@1MW,X:@I.Y M,8\A^%J/DRP((DF5#PS(KS5-2,I Q#+^])S)MF0 [JY?V*^C= 8R1T<3(W^* MVC?CY#2!FA:XDGYF-E^H]W,2^"HC77S"IL_-$]A6SAO5@UF!$KI[XU/_'78 M>2X&(.\!>=3=%8HJK]!C65BS 1NRF2TLHM6(9G%"ATNY]99/!>-\^<-X@A/X M"!.CE/#\N:T;#4'V'@N\)%T)X>.-*]KW39509_DQ?+Z?P<'^WNEP='S^'UG^%K8^\]V//+(?O\'^<'?'VJI& MBPHES.@\VJ!!^?NO\&8!XUXP)OK[[&G[=D)]3_?V:B7?+A!$Y0[BH:Q%:MFHU>T9KGJHU'W:TI1;82*,5?##FO6>Q$#(9119C:=3DX'6595J3K7?7I3EN% M';UNQ3:@:0% [.C3R<)V*[KN\";-G;:W'CNV[AL^$=!-B3P^<)PM_5!:-[M MKZ?\!U!+ P04 " #Z@0U9M!SM4G6110 &0 'AL+W=O2.,HN6,LZB)":IO'AS=&]!"B:C MS?/[F:'Q$9O(B7"WR3\DUE]4&N25O MFBRR];_DNOIL_XA,5UF>++*O!10;+*-[\'_ZH=L36 &MP8(!=#;!W!S@'!@RJ_M 8.V YQJ@--V@%L-<-L.&%8#AKL#W .#1M6 4=L(XVK >'Z.' 235@LCM@ M>.C]6^/7+]M4M:=P=Y,NLTL64^QIV$>OGV=)M0,O)% M_LA7X>)E\>%?/[\G+_[Y\O5)7]10@DZF53BV"6MF,'TS:#!^OA@[JCV3!\50P?] l&YRVV?7!XUXF'1??-P]_+ MZ5WTNFT/VASWX7JX99A'@SLA#M8\YP!OH[]W^_H[3=,POI1%&F?"T#):7/>N9OSSH/G?-9VTK-B2/'I M8II_E&F4%&_]>[V>*H:EZ]);TFC1G3]_07.^K7:L[X\"NND/" M/"2,(F$,">-(F!CNZ6[@CMT]W2%C!B"8IKO1G>Y&3[<.K14>-(F!BWD2@R8@"":1*=W$ET\KQ7K^;T#*HS#NRJ.B3,0\(H M$L:0,(Z$B4F[U2LR9@"":;JS^NH:7O_)E$>3]$)&^:K(L[WR&O+[.JB5G7E4 M5]U:1Z41]$T!J5Q*$U4M&WU#0>6[>Z(#QHT0-%7^6U=0K>:Y9=MSG/*0DN__MA8N5[-6K30GR3FJUU['/S#$[BP-)\ZT"J6QBC:<7G/U^[M__3DTJ*@)ZNP' M]:%! Q1-G_6VFO6V<=9_B.)HN5J2KQ]D>8&Y_B^\$=%Y$B-I'I1&H30&I7$H M34!J/]06H&BZ))2%PVKCX:CQ4-6NP[[5K<-H&*6: D).LVRUW/I")*?EN8DOM,EV2%_\KP[36QV'.L+/BH$X.*(U":0Q*XU":;)AU+KF1Y2FI(5FNK6VU,D,F M%*!HNLR4:\0R^RV\'W*Z*IVX&0GC&0GD3?DU)4OB6"[,Y0AJR8#2/"B-0FD, M2N-0FH#2?"@M0-%TG2@/A_5P$!=SL%>=F;>CLRZAOHV*-M%\/^Y$7]E3:$P& MI7$H34!I/I06H&BZW11[PWHZ^\;]3%-GY@P[*PSDJ+!J; 7CT=Z)60J-RJ T M#]4)*.V"T@(43=>2ET8:#8*V_6=2]"NJ+@-($E.9#:0&*IJM*F2oLL /@?93*:9ZDYF]) M4!,"E.9!:11*8U :A](S E.9#:0&*IFM"N1:LI[.MW':5!C4@0&F>57YC 3HSY]=525":!Z51*(U!:1Q* M$;^!:#\^[-[<14:-$#1="$I2X'=PE+P5[&[GIDWIK/JH%X%*(U":0Q*XU": MJ&CZ>< 1[@V/T)@!BJ;+3CD:;+.CX2\F JBW DKSH#0*I3$HC4-IHJ(UB0[MF4#1=-$ISX3]=`TO[K=DA#HFH#0/2J-0&H/2.)0F[/WN%[5+1J@K D73A:1<M$7:#*V)YA4NI,R.) ?,D,ZS'6J!@-(HE,:@- ZE"2C-A](":$T7A;) V.^] MC\69.9Y5%V6ST,2?4 M63E0IT/#SCIHS:'0-!B4QJ$T :7Y4%] JNE:4J8&VVQJN+M%@IS&, (N*65O M?D%N_3\-YPB@=@0HS8/2*)3&H#0.I0DHS8?2 A1-[!NL3 N#AYL6GL5M$M5V MZ%<'QHZ^EGIOWMJN>H/2*)3&H#0.I0DHS8?2 A1-UYOR-@S,W@95F\XO+@H% MF-VH9EC78@2E>5 :A=(8E,:A-&E^5!:@*+IXE >A,'#/0B/?#ZARE"[>+;? MS.*]>4,Z2PGJ&(#2&)3&H30!I?E06H"BZ5+:>]#&HW=CZ'@^H2$A9W.C?FU= MPCXR _O,#.Q#,Z"V 2A-0&D^E!:@:+J8E+M@8'87 .DV'7-^G=>!4.,"E$:A M- .:E<2A-5#$MW])^3=\L:-0 1=.5I"P)@R?LRO#H+E/SQG26'=2] *51*(U! M:1Q*$X.ZEA:CT:[HH.8%%$T7G3(0#!]>FN$9B0[JH8#2/"B-0FD,2N-0FJAH M3:*#>B-0-%UTRALQ>#IOQ/W6C%!G!)3F06D42F-0&H?2Q&#?45*_9H1:(U T M74G*&C$P7^W?7.!-VE[-=,ZSWNHKP%*HU :@](XE":@-!]*"U T71W*[#!X M]AT>P=2R-"S8SJ>N" M#4KSH#0*I3$HC4-IDKSH:0 1=.5H4P.SM.9'.YU8L'<7V>]09T04!]%TAB4 MQ]$TX>S;5O::R_K0F &*INM(.1R#YGME42B-06D<2A/.?O>+NA4CU >![HNDZ M4CX(IW43AR_7B?F!:=-&X> S/D>B@#2:@-]*HU : M@](XE"8]6I/HH&8)%$T3G:O,$NXS?]I%.;^N.H+2/"B-0FD,2N-0FG#;/>T" M&C1 T70A*:>$V] 1HFI=;#P?869TGNQ0CP241J$T!J5Q*$U :3Z4%]!HNB:4 M1\)]YAX)Y[)*QCU]T5'=0C@:+IHE,>"??OY)$P;TQGT4$] M$E :A=(8E,:A-.'N>R3J1 ?U2*!HNNB41\)]YAX)T #1J@:+J0E%W"-=LEJFIS-@^C=!G&9<')Y[)S]8';&* T#TJC4!J# MTCB4)] T'TH+4#1=-.KNX#Y=QX?[51^H@P%*\Z T"J4Q*(U#:<+=[^%A#2O[M]YP!U,* HFE"&BH+P["]A>%,($!#MS*YJSWD _^X*DK$>F<-VU0>4YD%!%$IC M4!]'T@24YD-1 8JFRT@9&(9F \/3MTTO)1198% W)1)&&W;]P08Q#)H&A](8ME.9#:0&*IFM)&1~&[8T/+4O2_]//BQ<_1'&T7"W-90KJ<8#2("B-0FD,2N-0 MFH#2?"@M0-%T:2DOQ/"Y/1'#G%!G@4'] T[Z_#3.B@T#P:E<2A-0&D^E!:@ M:+J8E,=A<(CT+),'=:?6E5?BL'3N5S?F9O/TV1U.2>T?$[:=]F[?7A:1L)X M1@)Y4XHP2^)8+LRE#FIR@-(*(U":0Q*XU":@-)*"U T71U*C/$L(T9XDE+ M'=3] *5Y4!IMV/6'"R>#YL&A- &E^5!:@*+I8E*.B*'9$?&IT$:34NSW><\MF?Y.?HVC/",O/GW^-7MIKCI05P24YD%!%$IC4!]'T@24YD-I 8JF"T6Y(H:/ M[HKP_EA%^0T1<2&YU<8G>Y/!95]L^<.)_RA@M6[QH2_^K4RQ=JLH#2/"B- M0FD,2N-0FAC6/$##=6QKLG.="QHU0-%T82J7Q=#LLFA7P1[T_0KJP(#2/"B- M0FD,2N-0FH#2?"@M0-%T02D'QO#1'1B/4^G.S(EW%B+4F@&E42B-06E\6/- M%,L>]7>JC(!&:]:&T $73)#92WHR1V9O1NF:UBTXEFOMW,U H5$9E,:A-%&W1T;.>+#[M$%QHU !%T\6C/!8]LR3.T[#YA /4#P&E>5 :A=(8E,:A- &E^5!:@*+I\E$>B9'9(_&, M*O34@P&E>5 :A=(8E,:A-%'1FNZ4AP8-4#1=8M??(67@5 MY>%B4V@R\FD3<$8NBO4:7E0@H72&)3&H30! MI?E06E#1-&M2OZ_5-5TBRJXP>KJ&$>>K/,O#>!;%ESWRRZJL0HU"@GH2H#0/ M2]-0&AOMNPC<\:!OVI:^T.'0L*)M6+_N@\YP8CLI[I0#5'[:]!\K*\'XT9]4 M\4L2_US=T;3 />5>HC#GW%444)H'I5$HC8WWGQ!A6:/):J,2#HTJ6D:U:SYG M.X.^L _DF "5G:X(Y0\8M_$'/$P1FUF>7-PNM4Z_A]$B_+:0Z[76^FMZHP:@ MI@$HS8/2*)3&*IHVR.I.L5!P=D4 -0FT#>O7?? T&CC]X:X,'N/2_EA=VA^; M+^W7?Z>^NU6U_=VMM9,;>G4>2O.@- JE,2B-0VD"2O.AM !%T[6DKO2/'[VIM@FJ[W>PW,V?365U0!P"41]$T!J5Q*$U :7[#?+7Z!V_4#5")Z%)2E_O'YLO] ML++49LAMVX5V@_G/.G06'I'E0&H72&)3&H30!I?E06H"BZ1I4?H#QHW=0 MZ%3.H'8!*,V#TBB4QJT#J6)AAEVT';N0],(4#1=2,H9,#8[_[T8M;>LV/> MDLXBA%H%H#0*I3$HC4-I DKSH;0 1=.5J1P%XS;M&AY4XF@8I>2W<+&2Y#3+ M5LNM!R(M9?NBTR7IK('M2I:1Z41J$T!J5Q*$TTS#I#V8.Z$E T75S*E3 V MNQ*>1=F;1_*BXYT5YLWJK$BHZ0%*HU :@](XE":@-!]*"U T7:;*&3%NXXSX M?6@> 8JFJ6NBC!<3L_'B3RF"9?]8 M4X4SY]Q5;U":!Z51*(U!:1Q*$U":#Z4%*)JN067UF#QZ*X@N)S+-V716%]32 M :51*(U!:1Q*$PTS;"'XFD'S"% T74G*+3)Y(K?(?:M9^S.9YBWIK$*H]P1* MHU :@](XE":@-!]*"U T29G*+>S)Y=.)0[%F3/LK#BH'P5*HU :@](XE"8: M9IVI[D&[3Z!HNKJ4'67R#.THNW7O'J9^F$I_TVV=AJ4(,U+\Y(?%)],;8O>*PFL[/7(=Y7-2%% Y0Z;3*)/D M*BW*7WGSS3^M8W?2(U$\7:S*V\]>D1?A2S(8CWINOT^R=2N;G61(GI2@[4;OMO\L;'N/A@7 Q(LR*S'DG6OQ?:L[@I>W'(/\I- MB^(L+U[9-.](BL\6>V25:B9(C[SX5B3FVN:$ENMZGI6:5N[1=TG9A:3XY;:+ M;]8JNQ?3E\0:]8:&77#[V$Q%[+!%Y;YL7MN:V^*5)8',+>76M#@MCQ["6%:K63%VMF9%,: AQ5A-B8?MC\9(U2%^T1^ M_FHW:T^6IRT+[14[D_R# ..GM3#Z=>F9=^2HE,9&MH=W63FY[:IY8&/2A@?8 M+792.&.?8Y&DRR)\[9$HCKTUZ%V>QA0YE*NRL+XYE_9+>QL7BRX MEL4&'#S,QU^= _YS'A'P(T^F\#%))?PMW%\6V[-ZH/R%ER[+-KHR62SF+PES> M*]K7]+>_5/HBDJLRB6F8SOBT-^*<_D8E%$3E9Q7BXMMEXMHEP4JP[KU3O[Z&3O=6;] MXE;-ZZ>3X2N_6,;4O3,JWAF5[YRHT&]?7X67LIA/E\??.R?5@: M7<[O?LF3JS='UE%O_/,\6:Y_G,MP)M/R \7[%TF2W_Y2!KA.TM_7F_KV_P%0M2P,$% @ ^HS-6;.JL,'! @ P@< !D !X;"]W;W)K&ULK95M:]LP$.,_BO!@=+#$CITX39<8FCZP#;*5AFV.L1>?8E% M),N3E(=^^YUDU\O .;/LC:VG^^MW)IU!>I!JJW. 0XZ"%WKFY<:45[ZOTQP$MU7U90H$S:ZD$-=A5&U^7"FCFC 3WPR"(?4%9X253-_:@DJG<&%!$[X2@ MZFD.7!YFWL!['GADF]S8 3^9EG0#2S!?R@>%/;]1R9B 0C-9$ 7KF7<]N)I/M[']WX"N#@SYI$^CO)2LJM[7S(9EY@@8#:]P"O=\>;H!S*X08OVI-K]G2&IZV MG]7OG>_HRXIJN)'\&\M,/O,N/9+!FNZX>92'IU#.[)ZJ>3:?=-<*Q MPA[*TBB<96AGDD_2 (E)CRQSJ!'G'2@R>?2M#FORH%C*B@U9R PXN;@%0QG7;Z:^02PK[J]>P5 6&% @39$ M40-O[7DPL1-M+E>*@RKL-C/V2= /HDDT]?]*ES2%F8>E38/:@Y>\?C6(@W<=]V?<\(W _+5*T%!CW@]7.1V,EPWC97<,J_O3&<-.A1?&<-+P3?YW M#+L%XSJ&44<_ 9.Z*D!MW.NA22IWA:E*:#/:/%#755W^L[QZW194:1CB 8 #@= 9 >&PO=V]R:W-H965T/+(14P57(IY3RX%HT%J%$<]8EE>+Z9ATAI?I_?NQ/B:KU04 M)NO.(+F*8RHVMRSBZYL6:FUO? KG"Z5O],:72SIG]TQ]7MX)N.KM4((P9HD, M>8($>[OI3?!H1H@V2$?\':*U+/U&FLH#Y[T_ZXL_@IF7IB%C$?*4A*/Q[9E,6 M11H)XOB6@[9V/K5A^?<6 ,>4/)!YH))->?0E#-3BIC5HH8]TE6D/O'U'RPG MY&H\GT#6CZ1YK,U!KHAXFN^[T2\#0$.S7^BRN& M/'2%[A=4L"N=P@!->0Q]}6E:&7BDN/^$/B[3RXDN5*@VJ#UCBH:1O+SN*0A$ MP_7\W.DT$-BQ(%L6M\0(^)XF763A#B(6<=#G M^QEJO[U$;U$/24U+YO^]{CT!O)@VVH&O$?!WA7"3CTY-9X^KI14- G"9(ZH M0C/FL_B!"61GK&S4#I/;&3=WH6?\\=AUO2)S^=>^Y3/STN#T>MSHZ\WH> &]B*B1:PH.4B:949+6*5N9U6 K7[E]# TXG!NT1$W%<2^H=1 M434+;LW +MHPG80^BK/90 8HH)O*+CT/:.A#&E8@[;'W=NR]U[&'NE51SU"] MANV![5G5)>OO@NX;@ Y=T$3!>ZR-+\^>-D9$O?J.Y)+Z[*8% MRZMDXIPUUC__A#WKUZIR]8_FU@ 3S[+VV<_,++[B?PT%'.QR,6B4BO=,/:.# MIJG)P+!3+GG7.TB,F9(Y,<-=8H9&E'??F?!#O=R=VR)&O*9Y&!ZUR)5M659- MYV.K6,^M!K1>4&TS?E..:=IPK]RV5\.RI%KP"9;+4&B.Y/P9;H9L3 Q7%- _= MN$>3_ 03:,.5V]J:$R*K! C5J;A;H\UW$3 6V#.0*\KB1XV]#SPCF[T?319 M4O%T-$W2L'G'7'1ZFOTSK1'H*T8D;J4[8A[!B*B\]V M QE]-,Z/>[QC&-@6(:3F;5YH3-Q(9!Z3?4EO&%TVYNX=]0;I#NN6L4*G8K/$ MR]^=]"%BKZCR#Y6N^%B[.HYM><2N(5L(46R6;2?)OJ3*/U2;X@IQ:G?KVKL0 MFO@LI5E#O':W:$9MS,T3)%G1*&OR _.<7Q9O5 LSB>#7>PHCQ0:1+'_=M [5 M$$L:T&6Z8:C#^B MMWKIZH[V.5?J^.4)M>(GO0[X!"13+]HG<0#%)< _DK_256 FR GMA&ST;)MDX1%'02WE6:Q6D(P'&JH>P8&)F @)$3603R]!CI11JM&]DU3"O-XO4=1)C\Y MC(6,K$36<1W4?H# 7&(.+$X_.TA-36?TED-.],4,M@&^XAKGC.C:_B7"_8YG M3$&\C/B&L1)B4T8Z=>W@$KL=+2)0IT3N8I@Z5-GA- 5S7+0,6%7*HQ9J2TF M4/4(87Q65PR<4E> P8D0DZ(E7!>/DYIR$K^]PEW0ZR?G'LOVCB-(JG]#WERD M$\.J"L^H#(W;?]\$^(TFZQZMFN<&AVW5K'99;%'JZ,1FG MBYUSL_Y RL^;IHKUZVO0SZ5NZ#*3[:%GV(]OK"/=FU^N@-W%=6 FJ/[0YL ML>H!=^QZ]TZ3S2]R"S9=T%#$0*"VS-VJ9;E7.@8"F'EZG ;$^"!1V??NW=W= MD=TD/:@ZN# %HQFNND]&LZKO$Z+/_JHL8*W/[(N=I>: >[P]+Q_U!+ P04 M " #Z@0U97'L49(H$ #I#@ &0 'AL+W=O9]]FQFLA'U6"J.$IS[@Z[R1;+\\<1T4) MYDSUQ!(YCF8OMWY626D[M)4YSY"H5'"3.SSL7 MWMG,"XV!G7&7XEKM?(.A\B#$HVG\$9]W7(,(XRT<<'H;X4SS#+CB7#]Q)OV MZICX&X9:G6L'1!0LS=1QRY3KFUL:O[_$ _E]I&C";() M[$05O&D)SW\%W@ N!=>)@\\OOBEO4-4:[[^AN_4;W7XN>]"-PN^*X?PB_@ M@#+$5?77$B%H%0ULA/"5"%\+K33C< *:USAVW%]L]L;XO.V0DG'%7Z3C&N=83PB:42 M[EA6H$4#UP] 9?K^&WV^%;P%B_'-*]@^4 M#/]A[XUJ*';:K#WRO?>]95L,:OR#M^%_7^E+$%[X0OO!'M]VI.U\AS7?8:N7 M.[H1?G:YA@?+=1(&PWZXC[\]\KW?AO^TQG_Z)OSONURG#2>E[^_1;0?:3G=4MTOVU>KGE*TMX 31H5)21606/"(SX:Y$IQC!B1'EF(!8@X14PD\"%XHFHE, MULHM$GI-K93.] M5.U"^E5!E EEPI?#2TH+R9!O T)LM&,*]H"ED 9^-?]%]9C]]!+(CT]1PO@" M>W2_72.5*HY990OEF-#_Q_D[X(W#+NGP?# JIEVU[KHNUW7=0],&+'G6C(S MLT=7U0XV*XTYN;3O;>L,3@ -3>E%1R*W*?%&T0:MF^Y 9R?1)R<+6 ^0XJ+@ MNDREZMZOKJPE<5>]347DW1_MFL:?Z%%Y!!T#@2;LHX9PNI+ +I?"U2KB## M.<%S>T.ZG6195Y4-+9:V-'D0F@H=^YE0+8K23*#QN:#RI&J8 '5U_ D;4$L# M!!0 (/]!#5F=.SYV;@0 " 6 9 >&PO=V]R:W-H965TY"4;6DO.5 >VS9(EM+A"[(RM&M^RH#:0KKX2\R8=?TZ'ER!GA'"=<4B#QM\$G.>224AL?M/?M/RGGAS"MB>$+R[.4+X=6SP(IGJ-USI_)]A=<.11(OH3DM3/V';85U+)"L&2=%92OF4&3E[A^]5T(<&0@=LX%7&7A-_^. :P.X+4C^)6! M?^T(066@7+=WOBOA8L31:$#)%E")%FRRH=17UD*OK)2),N-4O,V$'1]](1R# M$-R"V1)1?"LU3\&$%"(1&5*AO 5?2)D@M@0S3I(W)M*=9]@;F+,49:S3P+] M,HO!S?>?!C87TY.#V$DUE?%N*MZ9J4#P2$J^9&!:IC@UV,?M]F&+O2UDJ:7Q M]MJ,O5;"WS);E'8#.9^ YGF^8S^1ZM$@8K/\.G@E_E M1W(4>U.<=TRA8I)?JLW(ZT>A(Z:Q.99/AT'H0S<\A<4Z+'1\I^>>PJ8&6.CW M@Z"&G;CMUVI[[6[+L@"ZVP"_RS86"<1649=5.35V P27U-!A1C5TF%$- ZQ% MC:!6{[BLQNU8]?&$OHH%@X,'2E&YP++]>?]Q^.L1%Z^8_FV2HW4$N2[>LQ5* M\- 2"Q_#=(.MT0_?N:'SHZD"NR2+NR2;=D1V$J:P#E/86:V&>G;Z,("[1G8:M8%$/1HTDCG68#V'/B1K9J<."P.^[OCD[H]KMZ%O7:G2=&@:820T=9E1#A[6I MT:O5Z+6J\8P9IUG"A1B[A?NES#@#:-\^S%[%.MU5H*^']*[+1+LKA+LFE'9"?! MZ=?!Z7=6H7T]/7PG#!HI:4%?;^9D3K*C1POA\L9:%TEN.[YHQTG<-FT.G6 M%5J-<$B.$\R@AP%F%,2$:U/D:/OMMBKR,RXQ13E 90H>4K'!ST35(GEX M>4F* MD[92;6?_:*UVRA9WRC;MBNTT3MXA3EYG!5M1G2P/O0!&7C-'=1ST8-1O;OD, MN"#]BZ1O)JF."\4.$GIGDO2P]78$GM-.4!WF^6$4-//3 '-['CR3GH<3@'OA"-!!R8;:B=JH MAP%FTD.'&?4PP QZV$AW=Z>/B"ZRDH$R M--X1>LMXC4L@'_=SJEH]6J6*$XA8S')($751+LT+@+#E(!BQ+<8=FSO&YA!DD@FX<>/BE2K:K@_O.3NU\$+X)98@8SDGR/((]Z9 M:$.-1;#"><)OR>Y/[*R)5(]$E:\1[MJK*ZA,&>)#&6?F)'Z]V , (MGF:60',8T# _%8!5 :RN@'X%Z'=UR:X =E<+3@5PN@(&%6!0)*NOP/'I#>& !N@36FPPA0U)[#L=^3] MR&/^B#ZXP'&<.,/0%'GB.DXJBX->%BS[\^G'>G2-+/T.F;O8;)FUPZ\O%7#C M5:C;'6XUS<;[G/>[PYNL!^UP%\+7G#](A57+T"KX^J_P+3@)[!]GOQ*(D)O3 M.%NC.="81&>E,MD9FI'L7HA3%C"RJEH\7B: %A *"(^!H0]QAF@!;%1HJQ>R M[%^P+0YAHHFZSH#>@S;]I1?#T?]HDH=*,E2V0697(SNIZ9I1V1]?M] MB:BT&2@B.Y!/OY9/OUT^,N.?KL22% EAI&*=9KA8Z2XIQ=D:O-K)T?(1[8^; MX\>B^W*]5#9WUL)$#+S'H"&,1<]:-$E(J-?B6]EJ=.U55*LE_X6J+%W\M'8E*II-.IT^FK,#5HS5_[PRKRA?ZXA70+]MRESK32G MUF&59*Y*.D\EF:^2+%!$=]"28:V2X;NWD#?BU:@8\6;Y;K5UJI14DKDJR:SA_MBV+K.(X]&'IZ5"94VT5D!R(9U2(9==@H+ELWBNQYI[ALW"GR#5#$-SA[WC0& M LWW=HQGZ'MQ""+0E^(U!:^AWE>B.8U#*/07D23!E*&MX"NTV"C%,J+1?ED] M=XRCM:@U[%,EII+,Z^*^WS3(.E)AH.BM^$8^O-!B?Y3O*)6;KSU\C9K=_?4 ME"ME\Y2R^4K9 E5LAS+:.\)SWBVC6V!<% E9/6Y 2YUY1.Z@ICG'>=Y" M*F<.*KPO&+W0TLMAUL >Y$?CW(9O9G\P.OXY>]W,^AWI@O8I_\!LY]39OI.MIPN5=_NS9-O.Z#B%K3&<7 Y4LGF=(O"5V@Q4L96:Z>V=L*= \\7E"4,AR3-> MGG+6O?4%S65Q+7'4?V51MTC>DZSAA*8"5,Z><#,8VT MO& I&YQLB_/])>&6QEL MW*A(Z<"_.WO[8U&HRS>>O9^\,SEIW9U?[L;/#'#N!T[1S@&B%RU]H3C M ^7WJF/BW#;*W0+KM@Q9YSQH:X;]\6$_*T13Z9%O SHSR:EW3_C 'Q'.QI(! M*R,YXRL;:D-@4O!">DH_8MI*')'Y@X$VX,GK]+)F2BDR6TSV-_C:O@.L.Z! M0<9Y;;#MV\"P7Q*EJ!17NF,&F^ CR*O:MZM2,YQ*L2@K;':\AF]M..,BYD2F6= M)O37H6&?TPSL2#:=P5T590"@4D6N&RDCTT(0XV'-J!I:=D(YOX%7T^ =L2WN9 M;>RIJ3-1-[6AJFEE; ?T-]6L]J9LYUFZ7LGN^_5IH:/T/_7>- MUVZR10UV3L&D\D1F.R^V%OS*2;#8S#9?I4F@^]\MG$HW#H2UE$/MCMX# _QL<\GF3U!LO&%=,5+T92U,J'IT,M;PB8_VG\):^'I_2C"RXNJW!@=^T MO]*4+?*D'G4-"U&-:MI?8'IA7) [=2XF4KJDZ:CJRNG8-#W=T%FK"PB[R)6Y MW C&L9@; 0S+@SG .):%Y?F?YM-#YV.QS%O/B?103@_E6)8+&9D/EL?-223E MGFF21%$<8RLZ&CD=C+!UBV/X<:MAWH'Y8%,3UMK?+?Q"ME?!B>[JL0;*9X M)6(SO=<:$/>Z 2-)W+N-Y0$&M@M8[4!^=QZH*3_!G>^C8/T]%33_ M'O[^!5!+ P04 " #Z@0U9EXJ[', 3 @ "P %]R96QS+RYR96OS MG9*Y[L,P#$[Q="> ,?0(8@S9?$6!/D!5J(/V!(%BD6=OZ_:I7&0"OEY/3P2MW!YI0.TXI+:+J1C]$%)I6M6X 4BV)8]ISI%"KM0L'C6'TD!$VV-#L%HL/D N M&6:WO606IW.D5XA-/E_G;@2=&A(E@6FD7)TZ(=I7\=O _:0T^FO8R*T>EOH^7%H5 J.W&,E MC'%BM/XU@LD/[']X4$L#!!0 (/]!#5EAC,W%;P,)X9 / >&PO M=V]R:V)O;VLN>&ULQ9E-;L@&(#_"O)E/:Q+;/+15DVE+NVV2E,:-56O$[%) MC(HA YRN_?4#K&AXDU_M8GR)PT?@X77@ ?OR5:]7C90OZ%?%A5XDI3'[BI%(MYR6MB%XD]U38DJU4%3$VJ78CO5>4%+JDU%1\E(W'LU%%F$BN+H]MK=0H3$A# M<\.DL)DNXYG15_VGW"71@6FV89R9MT7BOW.:H(H)5K%W6BR2<8)T*5^_2<7>MI3"$KW.E.5\D:5/P3)5A^3 9:P?Y1#;:YOBR>2069)',OK:!+5/:^!J^?6(9 M#]16;E*UD5\8-U3=$$_ *EGOF=BY9NPH1L$P?!R.UR:(%^I_PBBW6Y;3&YG7 M%16FB:.BW $*7;*!3I@%5TDQRKH6A3H5A@;)'0GFJ9L73=2V_5=T8S:6-P@ MANJ"V0)U5WCP_B"7-BTY*VSO!?I,.!$Y13ZX&ITLZP R R"S 2%_9 $D!B!Q M1,BU@W _T$ANT<.>]@!R D!.!H-<&YD'D%, J(M4G2*'M2."/;N:R!BI_JZKBH20,X!R'D$R,Q"NKA]]) H]F?-#H2[B :09P#D M601(;"$?]:9$Y:6/XM+Z@&RD"B-Y#D">1X"0DA(.VG/WO&09PZRWFCZLW8[CMO#7],[A9R3M]BR=.Z&9C1QZ4J2PFS%TK101NV91#QDAY:0].V?-=H+9NL3MU)BAGM(422<=TCJMG5 *;2<=TCMM3$@\:0SS=*W]:4O/(6D.IW2MEBW.#')/ M%L,.IG?]-&\)"[LEBN*<3>&.[IQ)R&F!]LACVZ<2%01C MSD-.R$)9SQ:"U\W6%((LE,6P4"=F:PI!%LIB6*CK8-%>-R$+98-J'73(0ME M0YZ 6C<=0Q;"0YZ VL^*(OA(4] K9N.(0OA&!;JQ&S==/#16PP+=6*&LL20 MA7 ,"W5BAK+$D(5P# MU8H:RQ)"%< P+=9W.T4F("5D(>PN-CN\#"KIE@A;W MM@MM\W/"\Y5"[M(\CIA,W5E@6W.^M'D/XKLDQ?'UPO'5R-5O4$L#!!0 (M /]!#5F9/J*$? $)86 :>&PO7W)E;'_O=V]R:\O>&UL+G)E M;'-/V$UNPC 0AN&K1#X SLSP6P&K;MA67" *AB#RI]A5X?:-P$)\41?=(,\] MLJ.,W16CR-LO5V;AVM2^N+8^N5=E[7>F"]L:;GA:LRVM:5 _=OSDU79:%?M=A?:9ODMNSC+:;JTW>L,L]^^SDR.C];I9V)S/E]S]GDWY6KPQ^#[4_3W7SA M7##),>LN+NR.O9?CMK?#@V;]9),<3CO3'4YD:.P@AB",'R00)/&#YA TCQ^T M@*!%_* E!"WC!ZT@:!4_:U!Z_A!&PC;O ^B%&5,%21-L%:@-2'7I,!K0K!) M@=B$9),"LPG1)@5]$[)-"MPFA)L4RS$U(-RFPFO!O4J WH]ZL0&]&O5F!WCSY MV5:@-Z/>K$!O1KU9@=Z,>K,"O1GU9@5Z,^K-"O1FU)L5Z,VH-RO06U!O4:"W MH-ZB0&]!O46!WC*Y+%&@MZ#>HD!O0:U%@=Z">HL"O07UEG?][.C=']L>:[O M_'=2'?IOW7C\'QN3M@9<+9P#;W_!5!+ P04 " #Z@0U9JF<489@! + M%P $P %M#;VYT96YT7U1Y<&5S72YX;6S-F,UNPC 0A%\ERA418[NE/P(N M;:\MA[Z FVQ(1!);M!]P]G7^C]2*1B J=2ZQ$N _C+W2=\CD?6O(19NZ:MPT M+KPWCXRYM*!:N40:.L).KFVM?'BU"V94NE0+8F(T&K-4-YX:/ _2M1CR;/%.N M5I6/7C:ALRMU.XTM52Z.GG:%K=@8I*\^'[73SB@[TSM<[Z>VRVX>CG7+]7?\?<9' 0MS") <$B3'#4B. M6Y <8Y<=R Y[D%R/(#DX",4("A$Y2A(Y2A,Y2A0Y2A4Y2A8Y2A[9=DUJ5S<&?=?_ 9

A0#% @ ^H$-65S[+7"Y" '5X !D M (“!&\ 'AL+W=O&PO=V]R M:W-H965T&UL M4$L! A0#% @ ^H$-6>\9$P1, @ A@0 !D (“!#MD M 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ M^H$-6<>73.%X!@ .!T !D (“!,?4 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ ^H$-6==SF^;'! M\AH !D (“!1@4! 'AL+W=O&PO&PO7W)E;',O=V]R:V)O:VLN>&UL+G)E;'-02P$"% ,4 " #Z@0U9JF<4 M89@! +%P $P @ $0% $ 6T-O;G1E;G1?5'EP97-=+GAM 7;%!+!08 +0 M #(, #9%0$! end XML 51 Show.js IDEA: XBRL DOCUMENT // Edgar(tm) Renderer was created by staff of the U.S. Securities and Exchange Commission. Data and content created by government employees within the scope of their employment are not subject to domestic copyright protection. 17 U.S.C. 105. var Show={};Show.LastAR=null,Show.showAR=function(a,r,w){if(Show.LastAR)Show.hideAR();var e=a;while(e&&e.nodeName!='TABLE')e=e.nextSibling;if(!e||e.nodeName!='TABLE'){var ref=((window)?w.document:document).getElementById(r);if(ref){e=ref.cloneNode(!0); e.removeAttribute('id');a.parentNode.appendChild(e)}} if(e)e.style.display='block';Show.LastAR=e};Show.hideAR=function(){Show.LastAR.style.display='none'};Show.toggleNext=function(a){var e=a;while(e.nodeName!='DIV')e=e.nextSibling;if(!e.style){}else if(!e.style.display){}else{var d,p ;if(e.style.display=='none'){d='block';p='-'}else{d='none';p='+'} e.style.display=d;if(a.textContent){a.textContent=p+a.textContent.substring(1)}else{a.innerText=p+a.innerText.substring(1)}}} XML 52 report.css IDEA: XBRL DOCUMENT /* Updated 2009-11-04 */ /* v2.2.0.24 */ /* DefRef Styles */ .report table.authRefData{ background-color: #def; border: 2px solid #2F4497; font-size: 1em; position: absolute; } .report table.authRefData a { display: block; font-weight: bold; } .report table.authRefData p { margin-top: 0px; } .report table.authRefData .hide { background-color: #2F4497; padding: 1px 3px 0px 0px; text-align: right; } .report table.authRefData .hide a:hover { background-color: #2F4497; } .report table.authRefData .body { height: 150px; overflow: auto; width: 400px; } .report table.authRefData table{ font-size: 1em; } /* Report Styles */ .pl a, .pl a:visited { color: black; text-decoration: none; } /* table */ .report { background-color: white; border: 2px solid #acf; clear: both; color: black; font: normal 8pt Helvetica, Arial, san-serif; margin-bottom: 2em; } .report hr { border: 1px solid #acf; } /* Top labels */ .report th { background-color: #acf; color: black; font-weight: bold; text-align: center; } .report th.void { background-color: transparent; color: #000000; font: bold 10pt Helvetica, Arial, san-serif; text-align: left; } .report .pl { text-align: left; vertical-align: top; white-space: normal; width: 200px; white-space: normal; /* word-wrap: break-word; */ } .report td.pl a.a { cursor: pointer; display: block; width: 200px; overflow: hidden; } .report td.pl div.a { width: 200px; } .report td.pl a:hover { background-color: #ffc; } /* Header rows... */ .report tr.rh { background-color: #acf; color: black; font-weight: bold; } /* Calendars... */ .report .rc { background-color: #f0f0f0; } /* Even rows... */ .report .re, .report .reu { background-color: #def; } .report .reu td { border-bottom: 1px solid black; } /* Odd rows... */ .report .ro, .report .rou { background-color: white; } .report .rou td { border-bottom: 1px solid black; } .report .rou table td, .report .reu table td { border-bottom: 0px solid black; } /* styles for footnote marker */ .report .fn { white-space: nowrap; } /* styles for numeric types */ .report .num, .report .nump { text-align: right; white-space: nowrap; } .report .nump { padding-left: 2em; } .report .nump { padding: 0px 0.4em 0px 2em; } /* styles for text types */ .report .text { text-align: left; white-space: normal; } .report .text .big { margin-bottom: 1em; width: 17em; } .report .text .more { display: none; } .report .text .note { font-style: italic; font-weight: bold; } .report .text .small { width: 10em; } .report sup { font-style: italic; } .report .outerFootnotes { font-size: 1em; } XML 54 FilingSummary.xml IDEA: XBRL DOCUMENT 3.24.2.u1 html 239 251 1 true 82 0 false 7 false false R1.htm 000 - Document - Document And Entity Information Sheet http://www.dyadic.com/20240630/role/statement-document-and-entity-information Document And Entity Information Cover 1 false false R2.htm 001 - Statement - Consolidated Balance Sheets (Current Period Unaudited) Sheet http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited Consolidated Balance Sheets (Current Period Unaudited) Statements 2 false false R3.htm 002 - Statement - Consolidated Balance Sheets (Current Period Unaudited) (Parentheticals) Sheet http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited-parentheticals Consolidated Balance Sheets (Current Period Unaudited) (Parentheticals) Statements 3 false false R4.htm 003 - Statement - Consolidated Statements of Operations (Unaudited) Sheet http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited Consolidated Statements of Operations (Unaudited) Statements 4 false false R5.htm 004 - Statement - Consolidated Statements of Stockholders' Equity (Unaudited) Sheet http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-stockholders-equity-unaudited Consolidated Statements of Stockholders' Equity (Unaudited) Statements 5 false false R6.htm 005 - Statement - Consolidated Statements of Cash Flows (Unaudited) Sheet http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited Consolidated Statements of Cash Flows (Unaudited) Statements 6 false false R7.htm 006 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies Sheet http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies Note 1 - Organization and Summary of Significant Accounting Policies Notes 7 false false R8.htm 007 - Disclosure - Note 2 - Cash, Cash Equivalents, and Investments Sheet http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments- Note 2 - Cash, Cash Equivalents, and Investments Notes 8 false false R9.htm 008 - Disclosure - Note 3 - Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies Sheet http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies Note 3 - Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies Notes 9 false false R10.htm 009 - Disclosure - Note 4 - Convertible Notes Payable Notes http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable Note 4 - Convertible Notes Payable Notes 10 false false R11.htm 010 - Disclosure - Note 5 - Commitments and Contingencies Sheet http://www.dyadic.com/20240630/role/statement-note-5-commitments-and-contingencies- Note 5 - Commitments and Contingencies Notes 11 false false R12.htm 011 - Disclosure - Note 6 - Share-based Compensation Sheet http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation- Note 6 - Share-based Compensation Notes 12 false false R13.htm 012 - Disclosure - Note 7 - Shareholders' Equity Sheet http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity- Note 7 - Shareholders' Equity Notes 13 false false R14.htm 013 - Disclosure - Note 8 - Subsequent Events Sheet http://www.dyadic.com/20240630/role/statement-note-8-subsequent-events- Note 8 - Subsequent Events Notes 14 false false R15.htm 995445 - Disclosure - Insider Trading Arrangements Sheet http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements Insider Trading Arrangements Notes 15 false false R16.htm 995460 - Disclosure - Significant Accounting Policies (Policies) Sheet http://www.dyadic.com/20240630/role/statement-significant-accounting-policies-policies Significant Accounting Policies (Policies) Policies http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies 16 false false R17.htm 995461 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies (Tables) Sheet http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-tables Note 1 - 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Share-based Compensation (Tables) Tables http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation- 20 false false R21.htm 995465 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies (Details Textual) Sheet http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual Note 1 - Organization and Summary of Significant Accounting Policies (Details Textual) Details http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-tables 21 false false R22.htm 995466 - Disclosure - Note 1 - Organization and Summary of Significant Accounting Policies - Accounts Receivable (Details) Sheet http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-receivable-details Note 1 - Organization and Summary of Significant Accounting Policies - Accounts Receivable (Details) Details 22 false false R23.htm 995467 - 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Organization and Summary of Significant Accounting Policies - Research and Development Costs (Details) Details 25 false false R26.htm 995470 - Disclosure - Note 2 - Cash, Cash Equivalents, and Investments (Details Textual) Sheet http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-details-textual Note 2 - Cash, Cash Equivalents, and Investments (Details Textual) Details http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-tables 26 false false R27.htm 995471 - Disclosure - Note 2 - Cash, Cash Equivalents, and Investments - Major Security Type (Details) Sheet http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details Note 2 - Cash, Cash Equivalents, and Investments - Major Security Type (Details) Details 27 false false R28.htm 995472 - Disclosure - Note 3 - Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies (Details Textual) Sheet http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies-details-textual Note 3 - 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Share-based Compensation - Stock Option Activity (Details) Details 34 false false R35.htm 995479 - Disclosure - Note 6 - Share-based Compensation - Restricted Stock Units (Details) Sheet http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details Note 6 - Share-based Compensation - Restricted Stock Units (Details) Details 35 false false R36.htm 995480 - Disclosure - Note 6 - Share-based Compensation - Noncash Stock Option Compensation (Details) Sheet http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-noncash-stock-option-compensation-details Note 6 - Share-based Compensation - Noncash Stock Option Compensation (Details) Details 36 false false R37.htm 995481 - Disclosure - Note 7 - Shareholders' Equity (Details Textual) Sheet http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity-details-textual Note 7 - Shareholders' Equity (Details Textual) Details http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity- 37 false false All Reports Book All Reports dyai-20240630.xsd dyai-20240630_cal.xml dyai-20240630_def.xml dyai-20240630_lab.xml dyai-20240630_pre.xml dyai20240630_10q.htm logo.jpg http://fasb.org/us-gaap/2024 http://xbrl.sec.gov/dei/2024 http://xbrl.sec.gov/ecd/2024 true true JSON 57 MetaLinks.json IDEA: XBRL DOCUMENT { "version": "2.2", "instance": { "dyai20240630_10q.htm": { "nsprefix": "dyai", "nsuri": "http://www.dyadic.com/20240630", "dts": { "schema": { "local": ["dyai-20240630.xsd"], "remote": ["http://www.xbrl.org/2003/xbrl-instance-2003-12-31.xsd", "http://www.xbrl.org/2003/xbrl-linkbase-2003-12-31.xsd", "http://www.xbrl.org/2003/xl-2003-12-31.xsd", "http://www.xbrl.org/2003/xlink-2003-12-31.xsd", "http://www.xbrl.org/2005/xbrldt-2005.xsd", "http://www.xbrl.org/2006/ref-2006-02-27.xsd", "http://www.xbrl.org/lrr/role/negated-2009-12-16.xsd", "http://www.xbrl.org/lrr/role/net-2009-12-16.xsd", "http://www.xbrl.org/lrr/role/reference-2009-12-16.xsd", "https://www.xbrl.org/2020/extensible-enumerations-2.0.xsd", "https://www.xbrl.org/dtr/type/2020-01-21/types.xsd", "https://www.xbrl.org/dtr/type/2022-03-31/types.xsd", "https://xbrl.fasb.org/srt/2024/elts/srt-2024.xsd", "https://xbrl.fasb.org/srt/2024/elts/srt-roles-2024.xsd", "https://xbrl.fasb.org/srt/2024/elts/srt-types-2024.xsd", "https://xbrl.fasb.org/us-gaap/2024/elts/us-gaap-2024.xsd", "https://xbrl.fasb.org/us-gaap/2024/elts/us-roles-2024.xsd", "https://xbrl.fasb.org/us-gaap/2024/elts/us-types-2024.xsd", "https://xbrl.sec.gov/country/2024/country-2024.xsd", "https://xbrl.sec.gov/currency/2024/currency-2024.xsd", "https://xbrl.sec.gov/dei/2024/dei-2024.xsd", "https://xbrl.sec.gov/ecd/2024/ecd-2024.xsd", "https://xbrl.sec.gov/exch/2024/exch-2024.xsd", "https://xbrl.sec.gov/naics/2024/naics-2024.xsd", "https://xbrl.sec.gov/sic/2024/sic-2024.xsd", "https://xbrl.sec.gov/stpr/2024/stpr-2024.xsd"] }, "calculationLink": { "local": ["dyai-20240630_cal.xml"] }, "definitionLink": { "local": ["dyai-20240630_def.xml"] }, "labelLink": { "local": ["dyai-20240630_lab.xml"] }, "presentationLink": { "local": ["dyai-20240630_pre.xml"] }, "inline": { "local": ["dyai20240630_10q.htm"] } }, "keyStandard": 219, "keyCustom": 32, "axisStandard": 27, "axisCustom": 0, "memberStandard": 33, "memberCustom": 43, "hidden": { "total": 109, "http://fasb.org/us-gaap/2024": 69, "http://xbrl.sec.gov/ecd/2024": 21, "http://xbrl.sec.gov/dei/2024": 6, "http://www.dyadic.com/20240630": 13 }, "contextCount": 239, "entityCount": 1, "segmentCount": 82, "elementCount": 428, "unitCount": 7, "baseTaxonomies": { "http://fasb.org/us-gaap/2024": 623, "http://xbrl.sec.gov/dei/2024": 29, "http://xbrl.sec.gov/ecd/2024": 24 }, "report": { "R1": { "role": "http://www.dyadic.com/20240630/role/statement-document-and-entity-information", "longName": "000 - 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Organization and Summary of Significant Accounting Policies - Accrued Expenses (Details)", "shortName": "Note 1 - Organization and Summary of Significant Accounting Policies - Accrued Expenses (Details)", "isDefault": "false", "groupType": "disclosure", "subGroupType": "details", "menuCat": "Details", "order": "24", "firstAnchor": { "contextRef": "i_2024-06-30", "name": "us-gaap:EmployeeRelatedLiabilitiesCurrent", "unitRef": "USD", "xsiNil": "false", "lang": null, "decimals": "INF", "ancestors": ["td", "tr", "tbody", "table", "us-gaap:ScheduleOfAccruedLiabilitiesTableTextBlock", "dyai:AccruedExpensesPolicyPolicyTextBlock", "us-gaap:BasisOfPresentationAndSignificantAccountingPoliciesTextBlock", "body", "html"], "reportCount": 1, "baseRef": "dyai20240630_10q.htm", "first": true, "unique": true }, "uniqueAnchor": { "contextRef": "i_2024-06-30", "name": "us-gaap:EmployeeRelatedLiabilitiesCurrent", "unitRef": "USD", "xsiNil": "false", "lang": null, "decimals": "INF", "ancestors": ["td", "tr", "tbody", "table", "us-gaap:ScheduleOfAccruedLiabilitiesTableTextBlock", "dyai:AccruedExpensesPolicyPolicyTextBlock", "us-gaap:BasisOfPresentationAndSignificantAccountingPoliciesTextBlock", "body", "html"], "reportCount": 1, "baseRef": "dyai20240630_10q.htm", "first": true, "unique": true } }, "R25": { "role": "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-research-and-development-costs-details", "longName": "995469 - 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Disclosure - Note 6 - Share-based Compensation - Noncash Stock Option Compensation (Details)", "shortName": "Note 6 - Share-based Compensation - Noncash Stock Option Compensation (Details)", "isDefault": "false", "groupType": "disclosure", "subGroupType": "details", "menuCat": "Details", "order": "36", "firstAnchor": { "contextRef": "d_2024-04-01_2024-06-30", "name": "us-gaap:AllocatedShareBasedCompensationExpense", "unitRef": "USD", "xsiNil": "false", "lang": null, "decimals": "INF", "ancestors": ["td", "tr", "tbody", "table", "us-gaap:ScheduleOfShareBasedCompensationActivityTableTextBlock", "us-gaap:DisclosureOfCompensationRelatedCostsShareBasedPaymentsTextBlock", "body", "html"], "reportCount": 1, "baseRef": "dyai20240630_10q.htm", "first": true }, "uniqueAnchor": null }, "R37": { "role": "http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity-details-textual", "longName": "995481 - Disclosure - Note 7 - Shareholders' Equity (Details Textual)", "shortName": "Note 7 - 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Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer)." } } }, "auth_ref": ["r34", "r647"] }, "us-gaap_AccountsPayableCurrentAndNoncurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AccountsPayableCurrentAndNoncurrent", "crdr": "credit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-

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Examples include taxes, interest, rent and utilities. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer)." } } }, "auth_ref": ["r36"] }, "us-gaap_AccruedProfessionalFeesCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AccruedProfessionalFeesCurrent", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accrued-expenses-details": { "parentTag": "us-gaap_AccruedLiabilitiesCurrent", "weight": 1.0, "order": 2.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accrued-expenses-details"], "lang": { "en-us": { "role": { "verboseLabel": "Legal expenses", "label": "us-gaap_AccruedProfessionalFeesCurrent", "documentation": "Carrying value as of the balance sheet date of obligations incurred through that date and payable for professional fees, such as for legal and accounting services received. 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Includes, but is not limited to, additional paid-in capital (APIC) for common and preferred stock." } } }, "auth_ref": ["r47", "r647", "r855"] }, "us-gaap_AdditionalPaidInCapitalMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdditionalPaidInCapitalMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-stockholders-equity-unaudited"], "lang": { "en-us": { "role": { "label": "Additional Paid-in Capital [Member]", "documentation": "Excess of issue price over par or stated value of the entity's capital stock and amounts received from other transactions involving the entity's stock or stockholders." } } }, "auth_ref": ["r514", "r717", "r718", "r719", "r720", "r788", "r857"] }, "us-gaap_AdjustmentsToAdditionalPaidInCapitalSharebasedCompensationRequisiteServicePeriodRecognitionValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdjustmentsToAdditionalPaidInCapitalSharebasedCompensationRequisiteServicePeriodRecognitionValue", "crdr": "credit", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-stockholders-equity-unaudited"], "lang": { "en-us": { "role": { "label": "Stock-based compensation expense", "documentation": "Amount of increase to additional paid-in capital (APIC) for recognition of cost for award under share-based payment arrangement." } } }, "auth_ref": ["r29", "r30", "r289"] }, "us-gaap_AdjustmentsToReconcileNetIncomeLossToCashProvidedByUsedInOperatingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdjustmentsToReconcileNetIncomeLossToCashProvidedByUsedInOperatingActivitiesAbstract", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "Adjustments to reconcile net loss to net cash used in operating activities:" } } }, "auth_ref": [] }, "ecd_AllIndividualsMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AllIndividualsMember", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "All Individuals [Member]" } } }, "auth_ref": ["r680", "r681", "r682", "r684", "r685", "r686", "r689"] }, "us-gaap_AllocatedShareBasedCompensationExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AllocatedShareBasedCompensationExpense", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-noncash-stock-option-compensation-details"], "lang": { "en-us": { "role": { "verboseLabel": "Stock-based compensation", "label": "Share based compensation expense - stock option", "documentation": "Amount of expense for award under share-based payment arrangement. Excludes amount capitalized." } } }, "auth_ref": ["r320", "r328"] }, "us-gaap_AllowanceForDoubtfulAccountsReceivable": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AllowanceForDoubtfulAccountsReceivable", "crdr": "credit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_AllowanceForDoubtfulAccountsReceivable", "terseLabel": "Accounts Receivable, Allowance for Credit Loss", "documentation": "Amount of allowance for credit loss on accounts receivable." } } }, "auth_ref": ["r111", "r169", "r209", "r212", "r213", "r821"] }, "dyai_AlphazymeMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "AlphazymeMember", "presentation": 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"http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-noncash-stock-option-compensation-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "Award Type [Axis]", "documentation": "Information by type of award under share-based payment arrangement." } } }, "auth_ref": ["r291", "r292", "r293", "r295", "r296", "r297", "r298", "r299", "r300", "r301", "r302", "r303", "r304", "r305", "r306", "r307", "r308", "r309", "r310", "r311", "r312", "r315", "r316", "r317", "r318", "r319"] }, "us-gaap_BasisOfAccountingPolicyPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "BasisOfAccountingPolicyPolicyTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-significant-accounting-policies-policies"], 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This element is distinct from Billed contracts receivables because this is based on noncontract transactions." } } }, "auth_ref": [] }, "dyai_BoardOfDirectorsMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "BoardOfDirectorsMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Board of Directors [Member]", "documentation": "Represents a member of the board of directors." } } }, "auth_ref": [] }, "dyai_BradleyEmalfarbMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "BradleyEmalfarbMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-convertible-debt-details", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "Bradley Emalfarb [Member]", "documentation": "Represents Bradley Emalfarb." } } }, "auth_ref": [] }, "dyai_BradleyScottEmalfarbMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "BradleyScottEmalfarbMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-convertible-debt-details", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "Bradley Scott Emalfarb [Member]", "documentation": "Represents Bradley Scott Emalfarb." } } }, "auth_ref": [] }, "us-gaap_CapitalizedContractCostAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CapitalizedContractCostAxis", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-5-commitments-and-contingencies-", "http://www.dyadic.com/20240630/role/statement-note-5-commitments-and-contingencies-details-textual"], "lang": { "en-us": { "role": { "label": "Capitalized Contract Cost [Axis]", "documentation": "Information by cost capitalized in obtaining or fulfilling contract with customer." } } }, "auth_ref": ["r220"] }, "us-gaap_CapitalizedContractCostDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CapitalizedContractCostDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-5-commitments-and-contingencies-", "http://www.dyadic.com/20240630/role/statement-note-5-commitments-and-contingencies-details-textual"], "lang": { "en-us": { "role": { "label": "Capitalized Contract Cost [Domain]", "documentation": "Cost capitalized in obtaining and fulfilling contract with customer." } } }, "auth_ref": ["r220"] }, "us-gaap_Cash": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "Cash", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details": { "parentTag": "us-gaap_CashAndCashEquivalentsAtCarryingValue", "weight": 1.0, "order": 1.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details"], "lang": { "en-us": { "role": { "label": "Cash, adjusted cost", "documentation": "Amount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Excludes cash and cash equivalents within disposal group and discontinued operation." } } }, "auth_ref": ["r94", "r478", "r515", "r538", "r647", "r675", "r706"] }, "us-gaap_CashAndCashEquivalentsAtCarryingValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAndCashEquivalentsAtCarryingValue", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details": { "parentTag": "us-gaap_InvestmentsAndCash", "weight": 1.0, "order": 0.0 }, "http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited": { "parentTag": "us-gaap_AssetsCurrent", "weight": 1.0, "order": 2.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited", "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details"], "lang": { "en-us": { "role": { "label": "Cash and cash equivalents", "totalLabel": "Cash and cash equivalents, adjusted cost", "documentation": "Amount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation." } } }, "auth_ref": ["r11", "r107", "r610"] }, "us-gaap_CashAndCashEquivalentsFairValueDisclosure": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAndCashEquivalentsFairValueDisclosure", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details"], "lang": { "en-us": { "role": { "label": "Cash and cash equivalent, fair value", "documentation": "Fair value portion of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": ["r790", "r791"] }, "us-gaap_CashAndCashEquivalentsPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAndCashEquivalentsPolicyTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-significant-accounting-policies-policies"], "lang": { "en-us": { "role": { "label": "Cash and Cash Equivalents, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy for cash and cash equivalents, including the policy for determining which items are treated as cash equivalents. Other information that may be disclosed includes (1) the nature of any restrictions on the entity's use of its cash and cash equivalents, (2) whether the entity's cash and cash equivalents are insured or expose the entity to credit risk, (3) the classification of any negative balance accounts (overdrafts), and (4) the carrying basis of cash equivalents (for example, at cost) and whether the carrying amount of cash equivalents approximates fair value." } } }, "auth_ref": ["r12"] }, "dyai_CashCashEquivalentsAndInvestmentsFairValue": { "xbrltype": "monetaryItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "CashCashEquivalentsAndInvestmentsFairValue", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details"], "lang": { "en-us": { "role": { "label": "Total, fair value", "documentation": "Represents fair value of cash, cash equivalents and investments." } } }, "auth_ref": [] }, "us-gaap_CashCashEquivalentsAndMarketableSecuritiesTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsAndMarketableSecuritiesTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-"], "lang": { "en-us": { "role": { "label": "Cash, Cash Equivalents, and Marketable Securities [Text Block]", "documentation": "The entire disclosure of cash, cash equivalents, and debt and equity securities, including any unrealized or realized gain (loss)." } } }, "auth_ref": ["r733"] }, "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations", "periodStartLabel": "Cash and cash equivalents at beginning of period", "periodEndLabel": "Cash and cash equivalents at end of period", "documentation": "Amount of cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including, but not limited to, disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": ["r11", "r60", "r124"] }, "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited": { "parentTag": null, "weight": null, "order": null, "root": true } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "totalLabel": "Net (decrease) increase in cash and cash equivalents", "documentation": "Amount of increase (decrease) in cash, cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including effect from exchange rate change. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": ["r0", "r60"] }, "us-gaap_CashMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details"], "lang": { "en-us": { "role": { "label": "Cash [Member]", "documentation": "Currency on hand as well as demand deposits with banks or financial institutions. 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["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited-parentheticals"], "lang": { "en-us": { "role": { "label": "Common stock, issued (in shares)", "documentation": "Total number of common shares of an entity that have been sold or granted to shareholders (includes common shares that were issued, repurchased and remain in the treasury). These shares represent capital invested by the firm's shareholders and owners, and may be all or only a portion of the number of shares authorized. Shares issued include shares outstanding and shares held in the treasury." } } }, "auth_ref": ["r45"] }, "us-gaap_CommonStockSharesOutstanding": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockSharesOutstanding", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited-parentheticals"], "lang": { "en-us": { "role": { "label": "Common stock, outstanding (in shares)", "documentation": "Number of shares of common stock outstanding. Common stock represent the ownership interest in a corporation." } } }, "auth_ref": ["r3", "r45", "r530", "r550", "r857", "r858"] }, "us-gaap_CommonStockValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockValue", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited": { "parentTag": "us-gaap_StockholdersEquity", "weight": 1.0, "order": 2.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited"], "lang": { "en-us": { "role": { "label": "Authorized shares - 100,000,000; issued shares - 41,731,141 and 41,064,563, outstanding shares - 29,477,639 and 28,811,061 as of June 30, 2024, and December 31, 2023, respectively", "documentation": "Aggregate par or stated value of issued nonredeemable common stock (or common stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another

section within stockholders' equity." } } }, "auth_ref": ["r45", "r480", "r647"] }, "us-gaap_ConcentrationRiskBenchmarkDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskBenchmarkDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Concentration Risk Benchmark [Domain]", "documentation": "The denominator in a calculation of a disclosed concentration risk percentage." } } }, "auth_ref": ["r19", "r20", "r31", "r32", "r167", "r593"] }, "us-gaap_ConcentrationRiskByBenchmarkAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskByBenchmarkAxis", "presentation": 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type of concentration risk, for example, but not limited to, asset, liability, net assets, geographic, customer, employees, supplier, lender." } } }, "auth_ref": ["r19", "r20", "r31", "r32", "r167", "r593", "r697"] }, "us-gaap_ConcentrationRiskCreditRisk": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskCreditRisk", "presentation": ["http://www.dyadic.com/20240630/role/statement-significant-accounting-policies-policies"], "lang": { "en-us": { "role": { "label": "Concentration Risk, Credit Risk, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy for credit risk." } } }, "auth_ref": ["r33", "r99"] }, "dyai_ConcentrationRiskNumberOfCustomers": { "xbrltype": "integerItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ConcentrationRiskNumberOfCustomers", "presentation": 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the number of suppliers accounting for 10% or more of the specified concentration risk benchmark." } } }, "auth_ref": [] }, "us-gaap_ConcentrationRiskPercentage1": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskPercentage1", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_ConcentrationRiskPercentage1", "terseLabel": "Concentration Risk, Percentage", "documentation": "For an entity that discloses a concentration risk in relation to quantitative amount, which serves as the \"benchmark\" (or denominator) in the equation, this concept represents the concentration percentage derived from the division." } } }, "auth_ref": ["r19", "r20", "r31", "r32", "r167"] }, "dyai_ConcentrationRiskSignificantCustomers": { "xbrltype": "integerItemType", "nsuri": "http://www.dyadic.com/20240630", 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discloses a concentration risk as a percentage of some financial balance or benchmark, identifies the type (for example, asset, liability, net assets, geographic, customer, employees, supplier, lender) of the concentration." } } }, "auth_ref": ["r19", "r20", "r31", "r32", "r167", "r593"] }, "dyai_ConsultantMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ConsultantMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Consultant [Member]", "documentation": "Represents information related to consultant." } } }, "auth_ref": [] }, "dyai_ConsultantOneMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ConsultantOneMember", "presentation": 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The debt is convertible into another form of financial instrument, typically the entity's common stock." } } }, "auth_ref": ["r6"] }, "us-gaap_ConvertibleDebtTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConvertibleDebtTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-tables"], "lang": { "en-us": { "role": { "label": "Convertible Debt [Table Text Block]", "documentation": "Tabular disclosure of convertible debt instrument. Includes, but is not limited to, principal amount and amortized premium or discount." } } }, "auth_ref": [] }, "dyai_ConvertibleDebtTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ConvertibleDebtTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable"], "lang": { "en-us": { "role": { "label": "Convertible Debt [Text Block]", "documentation": "Disclosure representing convertible debt." } } }, "auth_ref": [] }, "us-gaap_CorporateDebtSecuritiesMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CorporateDebtSecuritiesMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-", "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-details-textual"], "lang": { "en-us": { "role": { "label": "Corporate Debt Securities [Member]", "documentation": "Debt securities issued by domestic or foreign corporate business, banks and other entities with a promise of repayment." } } }, "auth_ref": ["r630", "r632", "r636", "r648", "r664", "r850"] }, "us-gaap_CostOfGoodsAndServicesSold": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CostOfGoodsAndServicesSold", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited": { "parentTag": "us-gaap_CostsAndExpenses", "weight": 1.0, "order": 3.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited"], "lang": { "en-us": { "role": { "label": "Costs of research and development revenue", "documentation": "The aggregate costs related to goods produced and sold and services rendered by an entity during the reporting period. This excludes costs incurred during the reporting period related to financial services rendered and other revenue generating activities." } } }, "auth_ref": ["r53", "r54", "r440"] }, "us-gaap_CostsAndExpenses": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CostsAndExpenses", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited": { "parentTag": "us-gaap_OperatingIncomeLoss", "weight": -1.0, "order": 1.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_CostsAndExpenses", "totalLabel": "Total costs and expenses", "documentation": "Total costs of sales and operating expenses for the period." } } }, "auth_ref": ["r59"] }, "us-gaap_CostsAndExpensesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CostsAndExpensesAbstract", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited"], "lang": { "en-us": { "role": { "label": "Costs and expenses:" } } }, "auth_ref": [] }, "srt_CounterpartyNameAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "CounterpartyNameAxis", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies", "http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies-details-textual"], "lang": { "en-us": { "role": { "label": "Counterparty Name [Axis]" } } }, "auth_ref": ["r129", "r130", "r243", "r261", "r402", "r422", "r473", "r611", "r613"] }, "dei_CurrentFiscalYearEndDate": { "xbrltype": "gMonthDayItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "CurrentFiscalYearEndDate", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Current Fiscal Year End Date", "documentation": "End date of current fiscal year in the format --MM-DD." } } }, "auth_ref": [] }, "us-gaap_CustomerConcentrationRiskMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CustomerConcentrationRiskMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Customer Concentration Risk [Member]", "documentation": "Reflects the percentage that revenues in the period from one or more significant customers is to net revenues, as defined by the entity, such as total net revenues, product line revenues, segment revenues. The risk is the materially adverse effects of loss of a significant customer." } } }, "auth_ref": ["r64", "r167"] }, "us-gaap_DebtConversionByUniqueDescriptionAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DebtConversionByUniqueDescriptionAxis", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-convertible-debt-details", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "Debt Conversion Description [Axis]", "documentation": "Information by description of debt issuances converted in 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the transaction not resulting in cash receipts or cash payments in the period." } } }, "auth_ref": ["r13", "r14"] }, "us-gaap_DebtConversionOriginalDebtAmount1": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DebtConversionOriginalDebtAmount1", "crdr": "credit", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "Conversion of convertible notes", "terseLabel": "Debt Conversion, Original Debt, Amount", "documentation": "The amount of the original debt being converted in a noncash (or part noncash) transaction. \"Part noncash\" refers to that portion of the transaction not resulting in cash receipts or cash payments in 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Includes, but is not limited to, legal, accounting, underwriting, printing, and registration costs." } } }, "auth_ref": ["r802", "r804"] }, "us-gaap_DeferredFinanceCostsGross": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DeferredFinanceCostsGross", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_DeferredFinanceCostsGross", "terseLabel": "Debt Issuance Costs, Gross", "documentation": "Amount, before accumulated amortization, of debt issuance costs. Includes, but is not limited to, legal, accounting, underwriting, printing, and registration costs." } } }, "auth_ref": ["r802", "r804"] }, "us-gaap_DeferredFinanceCostsNet": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DeferredFinanceCostsNet", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_DeferredFinanceCostsNet", "terseLabel": "Debt Issuance Costs, Net", "documentation": "Amount, after accumulated amortization, of debt issuance costs. 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"http://www.dyadic.com/20240630/role/statement-note-5-commitments-and-contingencies-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity-", "http://www.dyadic.com/20240630/role/statement-note-8-subsequent-events-"], "lang": { "en-us": { "role": { "label": "us-gaap_DisclosureTextBlockAbstract", "terseLabel": "Notes to Financial Statements" } } }, "auth_ref": [] }, "dei_DocumentFiscalPeriodFocus": { "xbrltype": "fiscalPeriodItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentFiscalPeriodFocus", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Document Fiscal Period Focus", "documentation": "Fiscal period values are FY, Q1, Q2, and Q3. 1st, 2nd and 3rd quarter 10-Q or 10-QT statements have value Q1, Q2, and Q3 respectively, with 10-K, 10-KT or other fiscal year statements 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Addresses all significant policy factors, including any antidilutive items that have been excluded from the computation and takes into account stock dividends, splits and reverse splits that occur after the balance sheet

date of the latest reporting period but before the issuance of the financial statements." } } }, "auth_ref": ["r17", "r18", "r153"] }, "us-gaap_EffectOfExchangeRateOnCashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EffectOfExchangeRateOnCashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited": { "parentTag": "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "weight": 1.0, "order": 3.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "Effect of exchange rate changes on cash", "documentation": "Amount of increase (decrease) from effect of exchange rate changes on cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; held in foreign currencies; including, but not limited to, disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } } }, "auth_ref": ["r800"] }, "dyai_EmployeeMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "EmployeeMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Employee [Member]", "documentation": "Represents information regarding an employee." } } }, "auth_ref": [] }, "us-gaap_EmployeeRelatedLiabilitiesCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EmployeeRelatedLiabilitiesCurrent", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accrued-expenses-details": { "parentTag": "us-gaap_AccruedLiabilitiesCurrent", "weight": 1.0, "order": 3.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accrued-expenses-details"], "lang": { "en-us": { "role": { "label": "Employee wages and benefits", "documentation": "Total of the carrying values as of the balance sheet date of obligations incurred through that date and payable for obligations related to services received from employees, such as accrued salaries and bonuses, payroll taxes and fringe benefits. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer)." } } }, "auth_ref": ["r36"] }, "us-gaap_EmployeeStockOptionMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EmployeeStockOptionMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-noncash-stock-option-compensation-details"], "lang": { "en-us": { "role": { "label": "Share-Based Payment Arrangement, Option [Member]", "documentation": "Share-based payment arrangement granting right, subject to vesting and other restrictions, to purchase or sell certain number of shares at predetermined price for specified period of time." } } }, "auth_ref": [] }, "dyai_EmployeesMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "EmployeesMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Employees [Member]", "documentation": "Represents information related to employees." } } }, "auth_ref": [] }, "dei_EntityAddressAddressLine1": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityAddressAddressLine1", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Address, Address Line One", "documentation": "Address Line 1 such as Attn, Building Name, Street Name" } } }, "auth_ref": [] }, "dei_EntityAddressCityOrTown": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityAddressCityOrTown", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Address, City or Town", "documentation": "Name of the City or Town" } } }, "auth_ref": [] }, "dei_EntityAddressPostalZipCode": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityAddressPostalZipCode", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Address, Postal Zip Code", "documentation": "Code for the postal or zip code" } } }, "auth_ref": [] }, "dei_EntityAddressStateOrProvince": { "xbrltype": "stateOrProvinceItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityAddressStateOrProvince", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Address, State or Province", "documentation": "Name of the state or province." } } }, "auth_ref": [] }, "dei_EntityCentralIndexKey": { "xbrltype": "centralIndexKeyItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCentralIndexKey", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Central Index Key", "documentation": "A unique 10-digit SEC-issued value to identify entities that have filed disclosures with the SEC. It is commonly abbreviated as CIK." } } }, "auth_ref": ["r677"] }, "dei_EntityCommonStockSharesOutstanding": { "xbrltype": "sharesItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCommonStockSharesOutstanding", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Common Stock, Shares Outstanding", "documentation": "Indicate number of shares or other units outstanding of each of registrant's classes of capital or common stock or other ownership interests, if and as stated on cover of related periodic report. Where multiple classes or units exist define each class/interest by adding class of stock items such as Common Class A [Member], Common Class B [Member] or Partnership Interest [Member] onto the Instrument [Domain] of the Entity Listings, Instrument." } } }, "auth_ref": [] }, "dei_EntityCurrentReportingStatus": { "xbrltype": "yesNoItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCurrentReportingStatus", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Current Reporting Status", "documentation": "Indicate 'Yes' or 'No' whether registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. This information should be based on the registrant's current or most recent filing containing the related disclosure." } } }, "auth_ref": [] }, "dei_EntityDomain": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited", "http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited-parentheticals", "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited", "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited", "http://www.dyadic.com/20240630/role/statement-document-and-entity-information", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-payable-details", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-receivable-details", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accrued-expenses-details", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-research-and-development-costs-details", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-tables", "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-", "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-details-textual", "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details", "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-tables", "http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies", "http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies-details-textual", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-convertible-debt-details", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-tables", "http://www.dyadic.com/20240630/role/statement-note-5-commitments-and-contingencies-", "http://www.dyadic.com/20240630/role/statement-note-5-commitments-and-contingencies-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-blackscholes-options-pricing-model-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-noncash-stock-option-compensation-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-stock-option-activity-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-tables", "http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity-", "http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity-details-textual", "http://www.dyadic.com/20240630/role/statement-note-8-subsequent-events-", "http://www.dyadic.com/20240630/role/statement-significant-accounting-policies-policies"], "lang": { "en-us": { "role": { "label": "Entity [Domain]", "documentation": "All the names of the entities being reported upon in a document. Any legal structure used to conduct activities or to hold assets. Some examples of such structures are corporations, partnerships, limited liability companies, grantor trusts, and other trusts. This item does not include business and geographical segments which are included in the geographical or business segments domains." } } }, "auth_ref": [] }, "dei_EntityEmergingGrowthCompany": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityEmergingGrowthCompany", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Emerging Growth Company", "documentation": "Indicate if registrant meets the emerging growth company criteria." } } }, "auth_ref": ["r677"] }, "dei_EntityFileNumber": { "xbrltype": "fileNumberItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityFileNumber", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity File Number", "documentation": "Commission file number. The field allows up to 17 characters. The prefix may contain 1-3 digits, the sequence number may contain 1-8 digits, the optional suffix may contain 1-4 characters, and the fields are separated with a hyphen." } } }, "auth_ref": [] }, "dei_EntityFilerCategory": { "xbrltype": "filerCategoryItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityFilerCategory", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Filer Category", "documentation": "Indicate whether the registrant is one of the following: Large Accelerated Filer, Accelerated Filer, Non-accelerated Filer. Definitions of these categories are stated in Rule 12b-2 of the Exchange Act. This information should be based on the registrant's current or most recent filing containing the related disclosure." } } }, "auth_ref": ["r677"] }, "dei_EntityIncorporationStateCountryCode": { "xbrltype": "edgarStateCountryItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityIncorporationStateCountryCode", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Incorporation, State or Country Code", "documentation": "Two-character EDGAR code representing the state or country of incorporation." } } }, "auth_ref": [] }, "dei_EntityInteractiveDataCurrent": { "xbrltype": "yesNoItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityInteractiveDataCurrent", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Interactive Data Current", "documentation": "Boolean flag that is true when the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files)." } } }, "auth_ref": ["r692"] }, "dei_EntityRegistrantName": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityRegistrantName", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Registrant Name", "documentation": "The exact name of the entity filing the report as specified in its charter, which is required by forms filed with the SEC." } } }, "auth_ref": ["r677"] }, "dei_EntityShellCompany": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityShellCompany", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Shell Company", "documentation": "Boolean flag that is true when the registrant is a shell company as defined in Rule 12b-2 of the Exchange Act." } } }, "auth_ref": ["r677"] }, "dei_EntitySmallBusiness": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntitySmallBusiness", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Small Business", "documentation": "Indicates that the company is a Smaller Reporting Company (SRC)." } } }, "auth_ref": ["r677"] }, "dei_EntityTaxIdentificationNumber": { "xbrltype": "employerIdItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityTaxIdentificationNumber", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Entity Tax Identification Number", "documentation": "The Tax Identification Number (TIN), also known as an Employer Identification Number (EIN), is a unique 9-digit value assigned by the IRS." } } }, "auth_ref": ["r677"] }, "us-gaap_EquityComponentDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EquityComponentDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-stockholders-equity-unaudited", "http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity-", "http://www.dyadic.com/20240630/role/statement-note-7-shareholders-equity-details-textual"], "lang": { "en-us": { "role": { "label": "Equity Component [Domain]", "documentation": "Components of equity are the parts of the total Equity balance including that which is allocated to common, preferred, treasury stock, retained earnings, etc." } } }, "auth_ref": ["r3", "r103", "r116", "r117", "r118", "r132", "r133", "r134", "r136", "r141", "r143", "r145", "r156", "r207", "r208", "r221", "r273", "r338", "r339", "r341", "r342", "r343", "r345", "r346", "r347", "r352", "r353", "r354", "r355", "r356", "r357", "r360", "r385", "r386", "r387", "r388", "r389", "r390", "r394", "r395", "r398", "r485", "r500", "r501", "r502", "r514", "r572"] }, "srt_EquityMethodInvesteeNameDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "EquityMethodInvesteeNameDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies", "http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies-details-textual"], "lang": { "en-us": { "role": { "label": "Investment, Name [Domain]" } } }, "auth_ref": ["r203", "r204", "r205", "r340", "r693", "r694", "r695", "r784", "r785", "r786", "r787"] }, "dyai_ExecutiveAndBoardOfDirectorsMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ExecutiveAndBoardOfDirectorsMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Executive And Board Of Directors [Member]", "documentation": "Represents executives and board of directors members." } } }, "auth_ref": [] }, "srt_ExecutiveOfficerMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "ExecutiveOfficerMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Executive Officer [Member]" } } }, "auth_ref": ["r728"] }, "dyai_ExecutivesAndKeyPersonnelMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ExecutivesAndKeyPersonnelMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Executives and Key Personnel [Member]", "documentation": "Represents executives and key personnel." } } }, "auth_ref": [] }, "us-gaap_FairValueAssetsMeasuredOnRecurringBasisUnobservableInputReconciliationByAssetClassDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueAssetsMeasuredOnRecurringBasisUnobservableInputReconciliationByAssetClassDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-

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Disclosures include, but are not limited to, how an entity that manages a group of financial assets and liabilities on the basis of its net exposure measures the fair value of those assets and liabilities." } } }, "auth_ref": [] }, "us-gaap_FairValueMeasurementsFairValueHierarchyDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueMeasurementsFairValueHierarchyDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details"], "lang": { "en-us": { "role": { "label": "Fair Value Hierarchy and NAV [Domain]", "documentation": "Categories used to prioritize the inputs to valuation techniques to measure fair value." } } }, "auth_ref": ["r248", "r280", "r281", "r282", "r283", "r284", "r285", "r363", "r364", "r365", "r366", "r367", "r374", "r375", "r377", "r409", "r410", "r411", "r622", "r623", "r630", "r631", "r632", "r636", "r639"] }, 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Intangible asset includes, but is not limited to, patent, copyright, technology, manufacturing process, software or trademark." } } }, "auth_ref": ["r755"] }, "dyai_LiquidityAndCapitalResourcesPolicyPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "LiquidityAndCapitalResourcesPolicyPolicyTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-significant-accounting-policies-policies"], "lang": { "en-us": { "role": { "label": "Liquidity and Capital Resources, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy for liquidity and capital resources." } } }, "auth_ref": [] }, "dei_LocalPhoneNumber": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "LocalPhoneNumber", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Local Phone Number", "documentation": "Local phone number for entity." } } }, "auth_ref": [] }, "us-gaap_LongTermDebt": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebt", "crdr": "credit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-convertible-debt-details"], "lang": { "en-us": { "role": { "label": "Net Carrying Amount", "documentation": "Amount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt. Excludes lease obligation." } } }, "auth_ref": ["r6", "r80", "r247", "r257", "r622", "r623", "r646", "r818"] }, "srt_MajorCustomersAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "MajorCustomersAxis", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Customer [Axis]" } } }, "auth_ref": ["r167", "r629", "r658", "r662", "r754", "r822", "r824", "r825", "r827", "r828", "r829", "r830", "r831", "r832", "r833", "r834", "r835", "r836", "r837", "r838", "r839", "r840", "r841", "r842", "r843", "r844", "r845", "r846", "r847", "r848", "r849", "r851", "r852"] }, "dyai_MarkEmalfarbMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "MarkEmalfarbMember", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "Mark Emalfarb [Member]", "documentation": "Represents information pertaining to Mark Emalfarb." } } }, "auth_ref": [] }, "srt_MaximumMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "MaximumMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-blackscholes-options-pricing-model-details"], "lang": { "en-us": { "role": { "label": "Maximum [Member]" } } }, "auth_ref": ["r227", "r228", "r229", "r230", "r287", "r329", "r367", "r438", "r496", "r498", "r505", "r520", "r521", "r578", "r582", "r584", "r585", "r587", "r604", "r605", "r619", "r626", "r633", "r639", "r640", "r644", "r645", "r659", "r752", "r809", "r810", "r811", "r812", "r813", "r814"] }, "srt_MinimumMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "MinimumMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-blackscholes-options-pricing-model-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Minimum [Member]" } } }, "auth_ref": ["r227", "r228", "r229", "r230", "r287", "r329", "r367", "r438", "r496", "r498", "r505", "r520", "r521", "r578", "r582", "r584", "r585", "r587", "r604", "r605", "r619", "r626", "r633", "r639", "r640", "r644", "r659", "r752", "r809", "r810", "r811", "r812", "r813", "r814"] }, "us-gaap_MoneyMarketFundsAtCarryingValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "MoneyMarketFundsAtCarryingValue", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details": { "parentTag": "us-gaap_CashAndCashEquivalentsAtCarryingValue", "weight": 1.0, "order": 0.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details"], "lang": { "en-us": { "role": { "label": "Money Market Funds, adjusted cost", "documentation": "Investment in short-term money-market instruments (such as commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit, and so forth) which are highly liquid (that is, readily convertible to known amounts of cash) and so near their maturity that they present an insignificant risk of changes in value because of changes in interest rates. Generally, only investments with original maturities of three months or less qualify as cash equivalents by definition. Original maturity means an original maturity to the entity holding the investment. For example, both a three-month US Treasury bill and a three-year Treasury note purchased three months from maturity qualify as cash equivalents. However, a Treasury note purchased three-years ago does not become a cash equivalent when its remaining maturity is three months." } } }, "auth_ref": [] }, "us-gaap_MoneyMarketFundsMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "MoneyMarketFundsMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-major-security-type-details"], "lang": { "en-us": { "role": { "label": "Money Market Funds [Member]", "documentation": "Fund that invests in short-term money-market instruments, for example, but not limited to, commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit, and other highly liquid securities." } } }, "auth_ref": ["r756"] }, "dyai_MrThomasEmalfarbMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "MrThomasEmalfarbMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "Mr. Thomas Emalfarb [Member]", "documentation": "Represents Mr. Thomas Emalfarb" } } }, "auth_ref": [] }, "ecd_MtrlTermsOfTrdArrTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "MtrlTermsOfTrdArrTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "Material Terms of Trading Arrangement [Text Block]" } } }, "auth_ref": ["r688"] }, "srt_NameOfMajorCustomerDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "NameOfMajorCustomerDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Customer [Domain]" } } }, "auth_ref": ["r167", "r629", "r658", "r662", "r754", "r822", "r824", "r825", "r827", "r828", "r829", "r830", "r831", "r832", "r833", "r834", "r835", "r836", "r837", "r838", "r839", "r840", "r841", "r842", "r843", "r844", "r845", "r846", "r847", "r848", "r849", "r851", "r852"] }, "us-gaap_NetCashProvidedByUsedInFinancingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInFinancingActivities", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited": { "parentTag": "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "weight": 1.0, "order": 1.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_NetCashProvidedByUsedInFinancingActivities", "totalLabel": "Net cash provided by financing activities", "documentation": "Amount of cash inflow (outflow) from financing activities, including discontinued operations. Financing activity cash flows include obtaining resources from owners and providing them with a return on, and a return of, their investment; borrowing money and repaying amounts borrowed, or settling the obligation; and obtaining and paying for other resources obtained from creditors on long-term credit." } } }, "auth_ref": ["r121"] }, "us-gaap_NetCashProvidedByUsedInFinancingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInFinancingActivitiesAbstract", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "Cash flows from financing activities" } } }, "auth_ref": [] }, "us-gaap_NetCashProvidedByUsedInInvestingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInInvestingActivities", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited": { "parentTag": "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "weight": 1.0, "order": 2.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_NetCashProvidedByUsedInInvestingActivities", "totalLabel": "Net cash (used in) provided by investing activities", "documentation": "Amount of cash inflow (outflow) from investing activities, including discontinued operations. Investing activity cash flows include making and collecting loans and acquiring and disposing of debt or equity instruments and property, plant, and equipment and other productive assets." } } }, "auth_ref": ["r121"] }, "us-gaap_NetCashProvidedByUsedInInvestingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInInvestingActivitiesAbstract", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "Cash flows from investing activities" } } }, "auth_ref": [] }, "us-gaap_NetCashProvidedByUsedInOperatingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInOperatingActivities", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited": { "parentTag": "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "weight": 1.0, "order": 0.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_NetCashProvidedByUsedInOperatingActivities", "totalLabel": "Net cash used in operating activities", "documentation": "Amount of cash inflow (outflow) from operating activities, including discontinued operations. Operating activity cash flows include transactions, adjustments, and changes in value not defined as investing or financing activities." } } }, "auth_ref": ["r60", "r61", "r62"] }, "us-gaap_NetCashProvidedByUsedInOperatingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInOperatingActivitiesAbstract", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "Cash flows from operating activities" } } }, "auth_ref": [] }, "us-gaap_NetIncomeLoss": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetIncomeLoss", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited": { "parentTag": "us-gaap_NetCashProvidedByUsedInOperatingActivities", "weight": 1.0, "order": 0.0 }, "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited": { "parentTag": null, "weight": null, "order": null, "root": true } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited", "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited", "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-stockholders-equity-unaudited"], "lang": { "en-us": { "role": { "label": "Net loss", "totalLabel": "Net loss", "documentation": "The portion of profit or loss for the period, net of income taxes, which is attributable to the parent." } } }, "auth_ref": ["r55", "r62", "r83", "r104", "r113", "r114", "r118", "r126", "r135", "r137", "r138", "r139", "r140", "r141", "r144", "r145", "r148", "r206", "r231", "r232", "r233", "r234", "r235", "r236", "r237", "r238", "r239", "r344", "r347", "r362", "r379", "r484", "r553", "r570", "r571", "r674", "r750"] }, "us-gaap_NewAccountingPronouncementsPolicyPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NewAccountingPronouncementsPolicyPolicyTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-significant-accounting-policies-policies"], "lang": { "en-us": { "role": { "label": "New Accounting Pronouncements, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy pertaining to new accounting pronouncements that may impact the entity's financial reporting. Includes, but is not limited to, quantification of the expected or actual impact." } } }, "auth_ref": [] }, "ecd_NonRule10b51ArrAdoptedFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "NonRule10b51ArrAdoptedFlag", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "ecd_NonRule10b51ArrAdoptedFlag", "terseLabel": "Non-Rule 10b5-1 Arrangement Adopted [Flag]" } } }, "auth_ref": ["r688"] }, "ecd_NonRule10b51ArrTrmntdFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "NonRule10b51ArrTrmntdFlag", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "ecd_NonRule10b51ArrTrmntdFlag", "terseLabel": "Non-Rule 10b5-1 Arrangement Terminated [Flag]" } } }, "auth_ref": ["r688"] }, "us-gaap_NonUsMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NonUsMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Non-US [Member]", "documentation": "Countries excluding the United States of America (US)." } } }, "auth_ref": ["r859", "r860", "r861", "r862"] }, "us-gaap_NonoperatingIncomeExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NonoperatingIncomeExpense", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited": { "parentTag": "us-gaap_NetIncomeLoss", "weight": 1.0, "order": 0.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_NonoperatingIncomeExpense", "totalLabel": "Total other income (expense), net", "documentation": "The aggregate amount of income or expense from ancillary business-related activities (that is to say, excluding major activities considered part of the normal operations of the business)." } } }, "auth_ref": ["r57"] }, "dyai_NonrefundableUpfrontPaymentReceived": { "xbrltype": "monetaryItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "NonrefundableUpfrontPaymentReceived", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies-details-textual"], "lang": { "en-us": { "role": { "label": "dyai_NonrefundableUpfrontPaymentReceived", "terseLabel": "Non-refundable Upfront Payment, Received", "documentation": "Represents non-refundable upfront payment, received." } } }, "auth_ref": [] }, "us-gaap_NonrelatedPartyMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NonrelatedPartyMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited", "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited", "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited"], "lang": { "en-us": { "role": { "label": "Nonrelated Party [Member]", "documentation": "Party not related to reporting entity." } } }, "auth_ref": ["r715", "r716"] }, "dyai_NoteToFinancialStatementDetailsTextual": { "xbrltype": "stringItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "NoteToFinancialStatementDetailsTextual", "lang": { "en-us": { "role": { "label": "Note To Financial Statement Details Textual" } } }, "auth_ref": [] }, "dyai_NotesToFinancialStatementsAbstract": { "xbrltype": "stringItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "NotesToFinancialStatementsAbstract", "lang": { "en-us": { "role": { "label": "Notes To Financial Statements [Abstract]" } } }, "auth_ref": [] }, "us-gaap_NumberOfOperatingSegments": { "xbrltype": "integerItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NumberOfOperatingSegments", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_NumberOfOperatingSegments", "terseLabel": "Number of Operating Segments", "documentation": "Number of operating segments. An operating segment is a component of an enterprise: (a) that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same enterprise), (b) whose operating results are regularly reviewed by the enterprise's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance, and (c) for which discrete financial information is available. An operating segment may engage in business activities for which it has yet to earn revenues, for example, start-up

operations may be operating segments before earning revenues." } } }, "auth_ref": ["r618", "r723"] }, "us-gaap_OperatingIncomeLoss": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingIncomeLoss", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited": { "parentTag": "us-gaap_NetIncomeLoss", "weight": 1.0, "order": 1.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_OperatingIncomeLoss", "totalLabel": "Loss from operations", "documentation": "The net result for the period of deducting operating expenses from operating revenues." } } }, "auth_ref": ["r86", "r616", "r722", "r724", "r725", "r726", "r727"] }, "us-gaap_OperatingLeaseLiabilityCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": 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Includes, but is not limited to, preferred shares issued, repurchased, and held as treasury shares. Excludes preferred shares classified as debt." } } }, "auth_ref": ["r44", "r259"] }, "us-gaap_PreferredStockSharesOutstanding": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PreferredStockSharesOutstanding", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited-parentheticals"], "lang": { "en-us": { "role": { "label": "Preferred stock, shares outstanding (in shares)", "documentation": "Aggregate share number for all nonredeemable preferred stock (or preferred stock redeemable solely at the option of the issuer) held by stockholders. Does not include preferred shares that have been repurchased." } } }, "auth_ref": ["r44", "r530", "r550", "r857", "r858"] }, "us-gaap_PreferredStockValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PreferredStockValue", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited": { "parentTag": "us-gaap_StockholdersEquity", "weight": 1.0, "order": 1.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited"], "lang": { "en-us": { "role": { "label": "Preferred stock, $.0001 par value: Authorized shares - 5,000,000; none issued and outstanding", "documentation": "Aggregate par or stated value of issued nonredeemable preferred stock (or preferred stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable preferred shares, par value and other disclosure concepts are in another section within stockholders' equity." } } }, "auth_ref": ["r44", "r479", "r647"] }, "us-gaap_PrepaidExpenseAndOtherAssetsCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PrepaidExpenseAndOtherAssetsCurrent", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited": { "parentTag": "us-gaap_AssetsCurrent", "weight": 1.0, "order": 4.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited"], "lang": { "en-us": { "role": { "label": "Prepaid expenses and other current assets", "documentation": "Amount of asset related to consideration paid in advance for costs that provide economic benefits in future periods, and amount of other assets that are expected to be realized or consumed within one year or the normal operating cycle, if longer." } } }, "auth_ref": ["r708"] }, "us-gaap_ProceedsFromIssuanceOfDebt": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ProceedsFromIssuanceOfDebt", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited": { "parentTag": "us-gaap_NetCashProvidedByUsedInFinancingActivities", "weight": 1.0, "order": 0.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "Proceeds from issuance of convertible notes, net of issuance costs", "documentation": "The cash inflow during the period from additional borrowings in aggregate debt. Includes proceeds from short-term and long-term debt." } } }, "auth_ref": ["r710"] }, "us-gaap_ProceedsFromIssuanceOfSeniorLongTermDebt": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ProceedsFromIssuanceOfSeniorLongTermDebt", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_ProceedsFromIssuanceOfSeniorLongTermDebt", "terseLabel": "Proceeds from Issuance of Senior Long-Term Debt", "documentation": "The cash inflow from a borrowing with the highest claim on the assets of the entity in case of bankruptcy or liquidation (with maturities initially due after one year or beyond the operating cycle, if longer)." } } }, "auth_ref": ["r10"] }, "us-gaap_ProceedsFromSaleAndMaturityOfHeldToMaturitySecurities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", 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Related party includes, but is not limited to, affiliate, other entity for which investment is accounted for under equity method, trust for benefit of employee, principal owner, management, and member of immediate family, and other party that may be prevented from pursuing separate interests because of control, significant influence, or ownership interest." } } }, "auth_ref": ["r168", "r286", "r399", "r400", "r476", "r483", "r523", "r524", "r525", "r526", "r527", "r549", "r551", "r577"] }, "us-gaap_RelatedPartyMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RelatedPartyMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited", "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited", "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-convertible-debt-details", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "Related Party [Member]", "documentation": "Party related to reporting entity. 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Related party includes, but is not limited to, affiliate, other entity for which investment is accounted for under equity method, trust for benefit of employee, principal owner, management, and member of immediate family, and other party that may be prevented from pursuing separate interests because of control, significant influence, or ownership interest." } } }, "auth_ref": ["r168", "r286", "r399", "r400", "r476", "r483", "r523", "r524", "r525", "r526", "r527", "r549", "r551", "r577", "r806"] }, "srt_RepurchaseAgreementCounterpartyNameDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "RepurchaseAgreementCounterpartyNameDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies", "http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies-details-textual"], "lang": { "en-us": { "role": { "label": "Counterparty Name [Domain]" } } }, "auth_ref": ["r129", "r130", "r243", "r261", "r402", "r422", "r473", "r612", "r613"] }, "us-gaap_ResearchAndDevelopmentExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ResearchAndDevelopmentExpense", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited": { "parentTag": "us-gaap_CostsAndExpenses", "weight": 1.0, "order": 2.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited"], "lang": { "en-us": { "role": { "label": "Research and development", "documentation": "Amount of expense for research and development. Includes, but is not limited to, cost for computer software product to be sold, leased, or otherwise marketed and writeoff of research and development assets acquired in transaction other than business combination or joint venture formation or both. Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity." } } }, "auth_ref": ["r331", "r606", "r617", "r815"] }, "dyai_ResearchAndDevelopmentExpenseFacilitiesOverheadAndOther": { "xbrltype": "monetaryItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ResearchAndDevelopmentExpenseFacilitiesOverheadAndOther", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-research-and-development-costs-details": { "parentTag": "dyai_ResearchAndDevelopmentExpenseIncludingRelatedParty", "weight": 1.0, "order": 1.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-research-and-development-costs-details"], "lang": { "en-us": { "role": { "label": "Facilities, overhead and other", "documentation": "Represents 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technique, or in bringing about a significant improvement to an existing product or process; or (2) to translate research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process." } } }, "auth_ref": ["r330"] }, "dyai_ResearchAndDevelopmentInProcessCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ResearchAndDevelopmentInProcessCurrent", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-payable-details": { "parentTag": "us-gaap_AccountsPayableCurrent", "weight": 1.0, "order": 1.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-payable-details"], "lang": { "en-us": { "role": { "label": "dyai_ResearchAndDevelopmentInProcessCurrent", "terseLabel": 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"http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-noncash-stock-option-compensation-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "Restricted Stock Units (RSUs) [Member]", "documentation": "Share instrument which is convertible to stock or an equivalent amount of cash, after a specified period of time or when specified performance conditions are met." } } }, "auth_ref": [] }, "us-gaap_RetainedEarningsAccumulatedDeficit": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RetainedEarningsAccumulatedDeficit", "crdr": "credit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-balance-sheets-current-period-unaudited": { "parentTag": "us-gaap_StockholdersEquity", "weight": 1.0, "order": 3.0 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Assessed Tax", "documentation": "Amount, excluding tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value added and excise." } } }, "auth_ref": ["r84", "r85", "r155", "r158", "r159", "r161", "r163", "r164", "r165", "r167", "r276", "r277", "r440"] }, "us-gaap_RevenuesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenuesAbstract", "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-operations-unaudited"], "lang": { "en-us": { "role": { "label": "Revenues:" } } } }, "auth_ref": [] }, "dyai_RonenTcheletMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "RonenTcheletMember", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "Ronen Tchelet [Member]", "documentation": "Represents information pertaining to Ronen Tchelet." } } }, "auth_ref": [] }, "ecd_Rule10b51ArrAdoptedFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "Rule10b51ArrAdoptedFlag", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "ecd_Rule10b51ArrAdoptedFlag", "terseLabel": "Rule 10b5-1 Arrangement Adopted [Flag]" } } }, "auth_ref": ["r688"] }, "ecd_Rule10b51ArrTrmntdFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "Rule10b51ArrTrmntdFlag", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "ecd_Rule10b51ArrTrmntdFlag", "terseLabel": "Rule 10b5-1 Arrangement Terminated [Flag]" } } }, "auth_ref": ["r688"] }, "us-gaap_SalesRevenueNetMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SalesRevenueNetMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Revenue Benchmark [Member]", "documentation": "Revenue from sale of product and rendering of service and other sources of income, when it serves as benchmark in concentration of risk calculation." } } }, "auth_ref": ["r167", "r696"] }, "us-gaap_ScheduleOfAccountsNotesLoansAndFinancingReceivableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAccountsNotesLoansAndFinancingReceivableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-

significant-accounting-policies-tables"], "lang": { "en-us": { "role": { "label": "Schedule of Accounts, Notes, Loans and Financing Receivable [Table Text Block]", "documentation": "Tabular disclosure of the various types of trade accounts and notes receivable and for each the gross carrying value, allowance, and net carrying value as of the balance sheet date. Presentation is categorized by current, noncurrent and unclassified receivables." } } }, "auth_ref": ["r46", "r52"] }, "us-gaap_ScheduleOfAccountsPayableAndAccruedLiabilitiesTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAccountsPayableAndAccruedLiabilitiesTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-tables"], "lang": { "en-us": { "role": { "label": "Schedule of Accounts Payable and Accrued Liabilities [Table Text Block]", "documentation": "Tabular disclosure of the (a) carrying value as of the balance sheet date of liabilities incurred (and for which invoices have typically been received) and payable to vendors for goods and services received that are used in an entity's business (accounts payable); (b) other payables; and (c) accrued liabilities. Examples include taxes, interest, rent and utilities. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer). An alternative caption includes accrued expenses." } } }, "auth_ref": [] }, "us-gaap_ScheduleOfAccruedLiabilitiesTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAccruedLiabilitiesTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-tables"], "lang": { "en-us": { "role": { "label": "Schedule of Accrued Liabilities [Table Text Block]", "documentation": "Tabular disclosure of the components of accrued liabilities." } } }, "auth_ref": [] }, "us-gaap_ScheduleOfCashCashEquivalentsAndShortTermInvestmentsTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfCashCashEquivalentsAndShortTermInvestmentsTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-2-cash-cash-equivalents-and-investments-tables"], "lang": { "en-us": { "role": { "label": "Cash, Cash Equivalents and Investments [Table Text Block]", "documentation": "Tabular disclosure of the components of cash, cash equivalents, and investments." } } }, "auth_ref": [] }, "srt_ScheduleOfEquityMethodInvestmentEquityMethodInvesteeNameAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "ScheduleOfEquityMethodInvestmentEquityMethodInvesteeNameAxis", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies", "http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies-details-textual"], "lang": { "en-us": { "role": { "label": "Investment, Name [Axis]" } } }, "auth_ref": ["r203", "r204", "r205", "r340", "r693", "r694", "r695", "r784", "r785", "r786", "r787"] }, "dyai_ScheduleOfResearchAndDevelopmentCostsTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "ScheduleOfResearchAndDevelopmentCostsTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-tables"], "lang": { "en-us": { "role": { "label": "Schedule of Research and Development Costs [Table Text Block]", "documentation": "Tabular disclosure of research and development costs." } } }, "auth_ref": [] }, "us-gaap_ScheduleOfShareBasedCompensationActivityTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationActivityTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-tables"], "lang": { "en-us": { "role": { "label": "Share-Based Payment Arrangement, Activity [Table Text Block]", "documentation": "Tabular disclosure of activity for award under share-based payment arrangement. Includes, but is not limited to, outstanding award at beginning and end of year, granted, exercised, forfeited, and weighted-average grant date fair value." } } }, "auth_ref": ["r4", "r5", "r74"] }, "us-gaap_ScheduleOfShareBasedCompensationStockOptionsActivityTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationStockOptionsActivityTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-tables"], "lang": { "en-us": { "role": { "label": "Share-Based Payment Arrangement, Option, Activity [Table Text Block]", "documentation": "Tabular disclosure for stock option plans. Includes, but is not limited to, outstanding awards at beginning and end of year, grants, exercises, forfeitures, and weighted-average grant date fair value." } } }, "auth_ref": ["r4", "r5", "r70"] }, "us-gaap_ScheduleOfShareBasedPaymentAwardStockOptionsValuationAssumptionsTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedPaymentAwardStockOptionsValuationAssumptionsTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-tables"], "lang": { "en-us": { "role": { "label": "Schedule of Share-Based Payment Award, Stock Options, Valuation Assumptions [Table Text Block]", "documentation": "Tabular disclosure of the significant assumptions used during the year to estimate the fair value of stock options, including, but not limited to: (a) expected term of share options and similar instruments, (b) expected volatility of the entity's shares, (c) expected dividends, (d) risk-free rate(s), and (e) discount for post-vesting restrictions." } } }, "auth_ref": ["r76"] }, "us-gaap_ScheduleOfSharebasedCompensationRestrictedStockAndRestrictedStockUnitsActivityTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfSharebasedCompensationRestrictedStockAndRestrictedStockUnitsActivityTableTextBlock", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-tables"], "lang": { "en-us": { "role": { "label": "Share-Based Payment Arrangement, Restricted Stock and Restricted Stock Unit, Activity [Table Text Block]", "documentation": "Disclosure of the number and weighted-average grant date fair value for restricted stock and restricted stock units that were outstanding at the beginning and end of the year, and the number of restricted stock and restricted stock units that were granted, vested, or forfeited during the year." } } }, "auth_ref": [] }, "dyai_SecondPaymentUponCompletionTransfer": { "xbrltype": "monetaryItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "SecondPaymentUponCompletionTransfer", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-3-research-and-collaboration-agreements-sublicense-agreements-and-investments-in-privately-held-companies-details-textual"], "lang": { "en-us": { "role": { "label": "dyai_SecondPaymentUponCompletionTransfer", "terseLabel": "Second Payment Upon Completion Transfer", "documentation": "Represents the second payment upon the completion of a transfer in an agreement." } } }, "auth_ref": [] }, "dei_Security12bTitle": { "xbrltype": "securityTitleItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "Security12bTitle", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Title of 12(b) Security", "documentation": "Title of a 12(b) registered security." } } }, "auth_ref": ["r676"] }, "dei_SecurityExchangeName": { "xbrltype": "edgarExchangeCodeItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "SecurityExchangeName", "presentation": ["http://www.dyadic.com/20240630/role/statement-document-and-entity-information"], "lang": { "en-us": { "role": { "label": "Security Exchange Name", "documentation": "Name of the Exchange on which a security is registered." } } }, "auth_ref": ["r678"] }, "srt_SegmentGeographicalDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "SegmentGeographicalDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Geographical [Domain]" } } }, "auth_ref": ["r165", "r166", "r441", "r442", "r443", "r444", "r445", "r446", "r447", "r448", "r449", "r450", "r451", "r452", "r453", "r454", "r455", "r456", "r457", "r458", "r459", "r460", "r461", "r462", "r463", "r464", "r465", "r466", "r467", "r468", "r469", "r470", "r517", "r518", "r519", "r579", "r583", "r586", "r588", "r591", "r595", "r596", "r597", "r598", "r599", "r600", "r601", "r602", "r603", "r609", "r628", "r649", "r650", "r651", "r652", "r653", "r654", "r655", "r656", "r661", "r668", "r754", "r822", "r824", "r825", "r827", "r828", "r829", "r830", "r831", "r832", "r833", "r834", "r835", "r836", "r837", "r838", "r839", "r840", "r841", "r842", "r843", "r844", "r845", "r846", "r847", "r848", "r849", "r851", "r852"] }, "dyai_SeniorSecured2024NotesMember": { "xbrltype": "domainItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "SeniorSecured2024NotesMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-convertible-debt-details", "http://www.dyadic.com/20240630/role/statement-note-4-convertible-notes-payable-details-textual"], "lang": { "en-us": { "role": { "label": "Senior Secured 2024 Notes [Member]", "documentation": "Represents the 2024 Senior Secured Convertible Promissory Notes." } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensation": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensation", "crdr": "debit", "calculation": { "http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited": { "parentTag": "us-gaap_NetCashProvidedByUsedInOperatingActivities", "weight": 1.0, "order": 13.0 } }, "presentation": ["http://www.dyadic.com/20240630/role/statement-consolidated-statements-of-cash-flows-unaudited"], "lang": { "en-us": { "role": { "label": "us-gaap_ShareBasedCompensation", "terseLabel": "Stock-based compensation expense", "documentation": "Amount of noncash expense for share-based payment arrangement." } } }, "auth_ref": ["r1"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardRequisiteServicePeriod1": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardRequisiteServicePeriod1", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardRequisiteServicePeriod1", "terseLabel": "Share-based Compensation Arrangement by Share-based Payment Award, Award Requisite Service Period (Year)", "documentation": "Estimated period over which an employee is required to provide service in exchange for the equity-based payment award, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days." } } }, "auth_ref": ["r634"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardVestingPeriod1": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardVestingPeriod1", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardVestingPeriod1", "terseLabel": "Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period (Year)", "documentation": "Period over which grantee's right to exercise award under share-based payment arrangement is no longer contingent on satisfaction of service or performance condition, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. Includes, but is not limited to, combination of market, performance or service condition." } } }, "auth_ref": ["r634"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeituresWeightedAverageGrantDateFairValue": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeituresWeightedAverageGrantDateFairValue", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "Unvested shares forfeited (3) (in dollars per share)", "documentation": "Weighted average fair value as of the grant date of equity-based award plans other than stock (unit) option plans that were not exercised or put into effect as a result of the occurrence of a terminating event." } } }, "auth_ref": ["r308"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriod": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriod", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "Granted, RSU (in shares)", "terseLabel": "Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period (in shares)", "documentation": "The number of grants made during the period on other than stock (or unit) option plans (for example, phantom stock or unit plan, stock or unit appreciation rights plan, performance target plan)." } } }, "auth_ref": ["r306"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriodWeightedAverageGrantDateFairValue": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriodWeightedAverageGrantDateFairValue", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "Granted, Weighted-average Grant Date Fair Value (in dollars per share)", "documentation": "The weighted average fair value at grant date for nonvested equity-based awards issued during the period on other than stock (or unit) option plans (for example, phantom stock or unit plan, stock or unit appreciation rights plan, performance target plan)." } } }, "auth_ref": ["r306"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedNumber": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedNumber", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedNumber", "periodStartLabel": "Outstanding, Balance, RSU (in shares)", "periodEndLabel": "Outstanding, Balance, RSU (in shares)", "documentation": "The number of non-vested equity-based payment instruments, excluding stock (or unit) options, that validly exist and are outstanding as of the balance sheet date." } } }, "auth_ref": ["r303", "r304"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedWeightedAverageGrantDateFairValue": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedWeightedAverageGrantDateFairValue", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedWeightedAverageGrantDateFairValue", "periodStartLabel": "Outstanding, Weighted-average Grant Date Fair Value (in dollars per share)", "periodEndLabel": "Outstanding, Weighted-average Grant Date Fair Value (in dollars per share)", "documentation": "Per share or unit weighted-average fair value of nonvested award under share-based payment arrangement. Excludes share and unit options." } } }, "auth_ref": ["r303", "r304"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriod": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriod", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriod", "negatedLabel": "Vested, RSU (in shares)", "documentation": "The number of equity-based payment instruments, excluding stock (or unit) options, that vested during the reporting period." } } }, "auth_ref": ["r307"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriodWeightedAverageGrantDateFairValue": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriodWeightedAverageGrantDateFairValue", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "Vested, Weighted-average Grant Date Fair Value (in dollars per share)", "documentation": "The weighted average fair value as of grant date pertaining to an equity-based award plan other than a stock (or unit) option plan for which the grantee gained the right during the reporting period, by satisfying service and performance requirements, to receive or retain shares or units, other instruments, or cash in accordance with the terms of the arrangement." } } }, "auth_ref": ["r307"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsExpectedVolatilityRate": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsExpectedVolatilityRate", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-blackscholes-options-pricing-model-details"], "lang": { "en-us": { "role": { "label": "Expected stock price volatility", "documentation": "The estimated measure of the

percentage by which a share price is expected to fluctuate during a period. Volatility also may be defined as a probability-weighted measure of the dispersion of returns about the mean. The volatility of a share price is the standard deviation of the continuously compounded rates of return on the share over a specified period. That is the same as the standard deviation of the differences in the natural logarithms of the stock prices plus dividends, if any, over the period." } } }, "auth_ref": ["r316"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMaximum": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMaximum", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-blackscholes-options-pricing-model-details"], "lang": { "en-us": { "role": { "label": "Risk-Free interest rate, maximum", "documentation": "The maximum risk-free interest rate assumption that is used in valuing an option on its own shares." } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMinimum": { "xbrltype": 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Non-Option Equity Instruments, Outstanding, Number (in shares)", "documentation": "Number of equity instruments other than options outstanding, including both vested and non-vested instruments." } } }, "auth_ref": ["r71", "r72"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNumberOfSharesAvailableForGrant": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardNumberOfSharesAvailableForGrant", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNumberOfSharesAvailableForGrant", "terseLabel": "Share-Based Compensation Arrangement by Share-Based Payment Award, Number of Shares Available for Grant (in shares)", "documentation": "The difference between the maximum number of shares (or other type of equity) authorized for issuance under the plan (including the effects of amendments and adjustments), and the sum of: 1) the number of shares (or other type of equity) already issued upon exercise of options or other equity-based awards under the plan; and 2) shares (or other type of equity) reserved for issuance on granting of outstanding awards, net of cancellations and forfeitures, if applicable." } } }, "auth_ref": ["r28"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableNumber": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableNumber", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-stock-option-activity-details"], "lang": { "en-us": { "role": { "label": "Exercisable at June 30, 2024 (in shares)", "documentation": "The number of shares into which fully or partially vested stock options outstanding as of the balance sheet date can be currently converted under the option plan." } } }, "auth_ref": ["r297"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableWeightedAverageExercisePrice": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableWeightedAverageExercisePrice", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-stock-option-activity-details"], "lang": { "en-us": { "role": { "label": "Exercisable at June 30, 2024 (in dollars per share)", "documentation": "The weighted-average price as of the balance sheet date at which grantees can acquire the shares reserved for issuance on vested portions of options outstanding and currently exercisable under the stock option plan." } } }, "auth_ref": ["r297"] }, 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the stock option plan." } } }, "auth_ref": ["r301"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsGrantsInPeriodGross": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsGrantsInPeriodGross", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-stock-option-activity-details"], "lang": { "en-us": { "role": { "label": "Granted (1) (in shares)", "terseLabel": "Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross (in shares)", "documentation": "Gross number of share options (or share units) granted during the period." } } }, "auth_ref": ["r299"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingIntrinsicValue": { "xbrltype": 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"http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-noncash-stock-option-compensation-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-restricted-stock-units-details"], "lang": { "en-us": { "role": { "label": "Award Type [Domain]", "documentation": "Award under share-based payment arrangement." } } }, "auth_ref": ["r291", "r292", "r293", "r295", "r296", "r297", "r298", "r299", "r300", "r301", "r302", "r303", "r304", "r305", "r306", "r307", "r308", "r309", "r310", "r311", "r312", "r315", "r316", "r317", "r318", "r319"] }, "us-gaap_ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsExercisesInPeriodWeightedAverageExercisePrice": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": 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"http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-stock-option-activity-details"], "lang": { "en-us": { "role": { "label": "Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)", "terseLabel": "Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price (in dollars per share)", "documentation": "Weighted average price at which grantees could have acquired the underlying shares with respect to stock options of the plan that expired." } } }, "auth_ref": ["r302"] }, "us-gaap_ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsForfeituresInPeriodWeightedAverageExercisePrice": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsForfeituresInPeriodWeightedAverageExercisePrice", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-stock-option-activity-details"], "lang": { "en-us": { "role": { "label": "Canceled (3) (in dollars per share)", "documentation": "Weighted average price at which grantees could have acquired the underlying shares with respect to stock options that were terminated." } } }, "auth_ref": ["r301"] }, "us-gaap_ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsGrantsInPeriodWeightedAverageExercisePrice": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsGrantsInPeriodWeightedAverageExercisePrice", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-stock-option-activity-details"], "lang": { "en-us": { "role": { "label": "Granted (1) (in dollars per share)", "terseLabel": "Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Grants in Period, Weighted Average Exercise Price (in dollars per share)", "documentation": "Weighted average per share amount at which grantees can acquire shares of common stock by exercise of options." } } }, "auth_ref": ["r299"] }, "us-gaap_ShareBasedCompensationAwardTrancheOneMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationAwardTrancheOneMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Share-Based Payment Arrangement, Tranche One [Member]", "documentation": "First portion of award under share-based payment arrangement differentiated by vesting feature, including, but not limited to, performance measure or service period." } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensationAwardTrancheTwoMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationAwardTrancheTwoMember", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Share-Based Payment Arrangement, Tranche Two [Member]", "documentation": "Second portion of award under share-based payment arrangement differentiated by vesting feature, including, but not limited to, performance measure or service period." } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensationOptionAndIncentivePlansPolicy": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationOptionAndIncentivePlansPolicy", "presentation": 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Includes, but is not limited to, methodology and assumption used in measuring cost." } } }, "auth_ref": ["r288", "r294", "r313", "r314", "r315", "r316", "r319", "r324", "r325", "r326", "r327"] }, "us-gaap_ShareBasedGoodsAndNonemployeeServicesTransactionBySupplierAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedGoodsAndNonemployeeServicesTransactionBySupplierAxis", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Supplier [Axis]", "documentation": "Information by supplier." } } }, "auth_ref": [] }, "us-gaap_ShareBasedGoodsAndNonemployeeServicesTransactionSupplierDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedGoodsAndNonemployeeServicesTransactionSupplierDomain", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies", "http://www.dyadic.com/20240630/role/statement-note-1-organization-and-summary-of-significant-accounting-policies-details-textual"], "lang": { "en-us": { "role": { "label": "Supplier [Domain]", "documentation": "Specific identification or general nature of (for example, a construction contractor, a consulting firm) the party from whom the goods or services were or are to be received." } } }, "auth_ref": [] }, "us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardExpirationPeriod": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SharebasedCompensationArrangementBySharebasedPaymentAwardExpirationPeriod", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardExpirationPeriod", "terseLabel": "Share-based Compensation Arrangement by Share-based Payment Award, Expiration Period (Year)", "documentation": "Period from grant date that an equity-based award expires, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days." } } }, "auth_ref": ["r635"] }, "us-

gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardFairValueAssumptionsExpectedTerm1": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SharebasedCompensationArrangementBySharebasedPaymentAwardFairValueAssumptionsExpectedTerm1", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-blackscholes-options-pricing-model-details", "http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-details-textual"], "lang": { "en-us": { "role": { "label": "Expected life of options (Year)", "terseLabel": "Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Term (Year)", "documentation": "Expected term of award under share-based payment arrangement, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days." } } }, "auth_ref": ["r315"] }, "us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsExercisableIntrinsicValue1": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsExercisableIntrinsicValue1", "crdr": "debit", "presentation": ["http://www.dyadic.com/20240630/role/statement-note-6-sharebased-compensation-stock-option-activity-details"], "lang": { "en-us": { "role": { "label": "Exercisable at June 30, 2024", "documentation": "Amount of difference between fair value of the underlying shares reserved for issuance and exercise price of vested portions of options outstanding and currently exercisable." } } }, "auth_ref": ["r28"] }, "us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsExercisableWeightedAverageRemainingContractualTerm1": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": 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Weighted average relates to the portion of time within a reporting period that common shares have been issued and outstanding to the total time in that period. Such concept is used in determining the weighted average number of shares outstanding for purposes of calculating earnings per share (basic)." } } }, "auth_ref": ["r15", "r16"] }, "dyai_statement-statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-payable-details": { "xbrltype": "stringItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "statement-statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-payable-details", "lang": { "en-us": { "role": { "label": "Note 1 - Organization and Summary of Significant Accounting Policies - Accounts Payable (Details)" } } }, "auth_ref": [] }, "dyai_statement-statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-receivable-details": { "xbrltype": "stringItemType", "nsuri": "http://www.dyadic.com/20240630", "localname": "statement-statement-note-1-organization-and-summary-of-significant-accounting-policies-accounts-receivable-details", 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MIWMYT]@C]WI=^A!0)KVA3VTD0]^!WZ6]M[.0\^!,2@1!34Z2[['O>]O!;_M= MK!X221-R1CO'ZIM65;FVI>?H2;$B3RB'E'!$Y%#)A\(B4<%%6=*H*L\0S$2) M?*C)D8;2'A,R6VXYKB@2E^B1U,3(4:
(;Z)S9>]>-*K.DW@IO> S'L)-ZXV') M>_&(VSTX..BJVHY%@D!XPS"@YUQ,3^F(A#YH$[(_0^)[(X^Z$"U\,J4LR!%D MJ@,BQC3X1J94SHA#*']$.@<6R5'3PIC,N HMI6-?S33(#N":LE?,$0_-Y"=*0RU1*?
T MZM<&@A>1N);V,$O50UF6)_VK@1)+4:?F M2$L8<(B];V9W)N+6LCFE5[^:.SH7CYNZ6[6QG@[5V4.9,E6R(O)\4=#1!82A'J S.8@$2B39IIKD4EJ M-E
"2S88%O!.#KJ"^[3+Z!A7/(4BDB]$C@O#T@'._+OOBWH0QGB@FE)E2>EL MYK$1CXN@$!.EPR35O:$C2Z5.AT0X*&=U@M6="3ZC(O#_]YEL634P$71TU,$5
M@ITD1W_X9+@#V5M"LB0@G^(H.X&%^E\7ZB6\B(&CCH3.]FEL]9.:XQ!_77. MQ0E]Y966&N72T;I& 8O'O!;:-!-T79N 1<*RH)&GL($!$%@>+'DA0P_4"L-V
MN1.J'X2Y,'<$7C"W<2R*J9+2L9#O]N:B:HT1*5B_W52[1+^%OZ*U5)TU\,^] M7L^RK=-85O;G,7.M,R76NEB(_=0MR%I2(Y34O6(_]J^%<1$SOQ2K&//8]\]7 M]*^>,RY-'%K/SPZD]SW7!6?
A\17*S0YH320=I3!!C:@U^,N'3(2NIZ*_@V= MWTB8*43L @SZB2KP^R2CC/4Y4L;]*V6L-R>1-M:UTL:Z3;3YUO8IZSC/GA$L MG]# @ZZ03PJFO=+F(QLGSGC)8CCZU)!C"C#[MJP"35DB+CZRK5
_KS3;FK'29#+CS?<)]EPIITS]#3"0>%2.K!9H"R]OZ8.EG M%/JG=;8TVL*FPHL.D1-[Y//[1XXH6CFF0/*N/DA.0_K'/780@-=OGA [5T: MNI4P[R\E02U%9#B=$C%7
]T;.V\$LS*N4AQU6N"QL3V#'G9@$=<8+09$FP+0 M>UP2>=+QN0P%A3^^@6X69LA7&>TLT,[J1]JI@+/0SCI.M;.N8^U>.:CVHC&O M_L'IX8[X*AB@BSUV1V40!8?-\%-;BBFH?-!"!9-
@#"T_10'F;*')3PHU%PM5 M7CDL]FT40(0S43YRN.^3(1?Q\!\+&L\9,AS",*),TFQIT:T>LV<"NCJ@_MR> M4!\;G,Y@O&X:EYY.35/_*@%)B;;-[$E"HDG64NLXU3GGR"R):;DB@OPM3QF
M72>V6A!6Z#)V)97#NVWF #=X=8F'C!AD81%]YS 7YN!<57#IN!SH(7/VRB; M2F2K0FE=1(}?N;O?X2">>L%BR(.7, .@#*?_#2>VRM8-.7ZWIW7\.^7X5($X M=&04>.7.?V_+"1$4.S$*YA WH\EA,
[>O:->4PW>U#L<4N(^B;25:!?5$]BOW M]8?()X6]CLW\7-*F*1_O:7W\(?%Q89?DE?OW(V9Q$ER)?3.P*I$VZ(IW^YK M?8OI7S\5:IW=O>ZU1L7.P>:[%[4%F"[P<&[M^^7INJ*'0CK3?)KN\.UP3:3
M'6"V^YP:78D&!K&DSP(VW/*RW@R4HJ\=:G5WI4P :TU9!B&D3S+6V K:PJ5R M?6\$(C7:-P@+?7ZR9&XQ8")1<&E /!^B/7T(M0N(_9\Y25,4@NMX]3O)R&FEL#2*-MTC'ID$*GZ
VV#2$USO"U,S4!"A)"__MT0?,G!;3[#/#5*^309CJC[>-P!1UM\YBW;-\PRC"%Y'D$',-3!V6*DMNNR-2X=!F8FY482 M#:)&?^2R&C7YNE/0;#OIUKR :S30K"O,(&ST9RF5]W^W :?VZ:I1I-078Q C
M^M.,U:>Y6WC4]-O0)\YWZ4R 6=I\AF424UT'MZNFW*6^F?G)B 8&0:4 _>%@) M*MOZC*K:_4A7ZRK2%3-GU-6Z1%VW,UBEP]6S^[&G;>($WAUN#SPRRE8+-0@L M_5%!!;#4VP-
B0%G'L79;*%5Z%00',/JB)_[1P2'H;VB#O[%4@V#2;]I7@.DF M52_&U2VJMT53I5\99VI3,QKRH;_]0MOBLU+LF_4U6]435^@;Q%AA"P(2D >[@*MC12^]3#_Q<.CR*?'8!=2AN1TK MHHU>]#:(;,-
H!SK[+MG$QH5-\!-(G23/HW\1'I]]""BI5?5H-[,K2%HR_M81K>YD@NV9:8EIP['S,T<]5^P:\$=*F7\@KV"C;69FA@;E4PY@Q C

MYD4[X[<3'G4<'!*!SOSH2PB!SOKR<>G/)N2O^906!N%2\7..N%+M/W,BW*O1_MJ2>H$W A\T:4UK;3%D%$T_\2GS4,+)I+8Y'C \N':X='A9F+XY?[^BQ$(2-%05,6_B__MYJ7 \XL?
WK])^,=ID>SL,VF!!A*P;3W[_%B*[/7:^62_M535(6VTE%WJ3,N5MU3_^]B/,(8M:",J"P@4+.,$ZCG*GMK24#UV9L1W*V4!:O_M6BRM2%?4MV45BGK%ES0]*O&>&LPI)%"7-A?EUR$,)=RTQ"TJW#]
(+&S._BPK MTYI=.,J*P?G:_1K?\;O!]/XOTNK2V_08-R,.QE#20F/TKMF/?Y_2[/N;<"Y&;1G43O&H],IE="NB].=@,0I'X'**EL99Y-OO<#*Y$Q]Z>4B M^]V:V*#5-,VQBN=@;&SXSX\;[%
[8RS2TKO&M\)9!K0 M_+7@:AA?=QA,!)5X=)18V(RU97L=I6X^!]?IUL=Y+U=2M1+?"$ED*E8/T J: M%MMU,B$>S$Z0_P\FM(Z1]1A:.:G$H:]"TBJH5H>B"06H*B?TIC?Y_P>(#*EBV M4;S3DYA3A_
YPDQ-*V$50_S;V;G@Z7[QPC)]9U,#SYE>E3=L>S0I!<1=#*V"\!B^D[[!!BFE5H:6TK;?DO<;[_0N:% M)=M2:4MU9U)2=CTAD$0X-%3?*$?SRQ:5(NV%?/Q5SHF?GH!)KKB4[A!LIJD M;?=%%I9Y?
X8>\,_Q/):.O(#X-U1"DN14W IJPOC,FI.EL+TDXKO^(H.VII5# M[U(,)M"R++&CK+85PPMR(4%'(7-1E=O9*)/Q1:]OH^E*NQ[IBYF*\2QFP"[
M@.$]B/0;?/$UU$%RYS8OOB9UZ_8AU9F33G6M:V4X@79'EU=W5$PH<8'L*I@LK&O.WK:H7Z[' M8'7IARZ@\X;Z^"6:R*">:W.*.\F?UP%0;22BA'JPP)+*_UFK&VYB-6G#F=N
MYFP6MYA\M7D[$(3)T<)[]4A;=@!1BM(^91X7ZK(8=?&A3+42R>.U@]8=R$V? M0,X^M)MYT$!^GB]H8N\=W^/1)>:%@PEA\>LOO@!+(&&B4"K\1KWQ!&;'X^B> MU=D#/HH DZ>
2)3VS_/(WGAQI70RO;HJZ0RT%H<'1(G!/1],0,'Q!"\#%*#6 ME+N5*[3^A(M@0,7TA(L9/OM"/T/H*(ZN"])V6A8ZF$6=+]V[TE6TTH+!A.[U M=G>O(:CF+=!5M-
6\"M7$)2>W%S)HH7%XO9J7WTJ]JLG=;=T#5Y6I&>_THE7F%2B\X M74[JB:+4IO+ZE[/BSWS_^&D^113UW=.,+;=U!VV-W@>ZC:T_3^5K)KZC_A?[K
M3(_=^65B7TO/U_W@T*/ZH;82K\4KR6=K'[774R$OIU>-?$&FHE/-R/CQ^K0F M)M=N[N7T5+-O(U3T5\-&?XQ>JXFI6DVI\G!XQ\T[SBCXS).1'Z-4UWH[:N%/7 MD?$C]&G5^ZL;=V1EPS]"
[U6\2+YQVU6U^R/T7]#EFC MC22^KD^CEPC -T2F!/_\4$L#!!0 (/]!#5E9KB+XL@H "$1 T5_M9'EA:2TR,#(T,#8S,%]C86PN>&UL[5W=<]LX#G^_F7L?>+YXQ?GH]K:=9G?<
MI.EF]JDS^:C;MQU:@F)N)=)'2DZ\? V1DNPXB<0/R;'HN3XT:6R Q@\$01 MY4^_/J;)8 &.8T]AP=[^\,!D!)&F-P?#^]N@O'-R?GY<, S1"*44 +'0T*' MO_[R[[]^D<0?
4"#&40#;;+P>TL)Q&P4YK"X/?/UO>#8+#__N/1NZO+P=WM MR>]P__!=L/lS<' 4!+]\2C#Y_E'^F"(. R$$X<6?Q\-9ELT_CD8/#P]ICU.6 M[%%V/SKDKX9^."IH#SY\^ #]WEV37$3SB!%
292(Z&4\-)'OC*Q@H8W&N[4$]3.HI)! .!2NR0+X4'!P& M1P=[CSP:"]T/!]7]&$W@&N*]_'UW??[L,Z,EKG%?V\'U]T)6)^__YH?R3I1D+F M#%(@61!2PFF"(SEWP?IE'M
XH',YI0('#W*"\@@+$@&S^-09@_AX*,;'P6ID M*=@_.P^<+>?"LCA.YPD,1QLX0Y2$>5*P78B_*W*)QA'D4C)XS$ 8=S4%*^$2 M&FH4(U_YXYQDP(!GYV)AI?"-DNKSR/WJ0Q(TA:3D-Z
N14JDN5%6:;M))*DC MOEH=,>+3PM1R'MPC-"IT-8(DXZM7"ND+R:L7_CBA/O$7RF-^)A$\ 6. 1^ M0Y/HA?#F#.[EEX)\>9P#X< 54M>1,97UC#+]^0D9TPXX>4M0X2C4!KF5X3)
M!>7\&E"" X(FW=L/X!3?2H@)N4$)3.SLA"&7BS#!D &'&X1%!M>(@QE*68 M8)[I:F RFR:4)AQ.46RP@(3.I:=0Z]R(QS&*!9 O(K;G86|%,>)YFA:#![B(&2U?\L1#>8*NFW3=" M(8<1T(,GH+WBM-
I93,$=>@+.8EF:0COR!)IID&R*:]\!+I6'IUMT."W6X-LY M&T/0ZN.3[.HCR]HB_#;)[IA-#JJ-W"<;Z=15I-H'',[I6)U@;MU#I&]LHH M=9BT\?,3FD^CNM28D^1@B/@LB!/ZL.WDH&K@?
I.#>LDZ)@=#![HC#*92_S\DX M#%D.T6KIUN<(#9EL#BV- JY\?FF9XY2R#/]5+B+QJ2#_,XFO&*0X3^NE;3." MT_/6IDB3^ P31$*Q%HMMO>%@9<+B-M,I#%7^^_+?'"_$=BWL5T30&<.AL%CY
MAHA/GK^P07D%#-/HM5U5P9J(VF:(W,.U6!E?XAC"EV;9KQ!.15Q^]"3>%&=" M.@%?0SS%?$XY2KXRFL_EN0=SX9K$MB#6]F1=16C-OO3^>98U_PRQH&G.D;08 MX4?>W#+.;7+-
AT5RN>;1$TZ0I,V?.YPF::PA!K)TV@%ZS]H]I,Z1XDD _$LC:H MM(/X@?,"HRE.<(8:;X0VK#UCJLN\K*1<&L,S&J5GI*<0@W#;495V.L;6P-T8D(?XYPM%)]=6@7T<0DFP&3"<'&#:W:8*[KDC**NF)T
M@<6I\//RCDL'N#XAC$5DL5#Y&?L!?,!7AA@=\"D&\ '?>FFUQ:<8X$?=_)64 M(KXKPM5;.@[%>83!;Y!$M_0293D3'NT&0OF[>1*L^=VB8S0$B+BLDIQSGLM>
MPDE\"M.FR$K/T)CO\H0AW.Y*LY/8=]:ZG.4KZLUSE7CO3W'Z-@6I8G6*Z6,& M&'P6.VIT0E.YA18G^084:N),)0OF7FW]<;4R!%Z5E[H_(R.O;ICZ =\#9) M=)];#+8]W18'/5,UQ-M!->B,\Z,8?]H!
[$8G1U,%O-]!!2@3BZ;__^6D ^"_MD#=E($W!_[R+X.W3"*J^,"_.EH7/HQC'R<=H6^T#Q@DK8WUX'\0:%[/-@.M MIA^]$^KM=[CY'_^9G.*.X?H;YW7N/2&L)\XV9TJWFF+9@=-N2V7H4S%^]7!V
M]\N+;H#2T%5'FF8?54BU22$/355T4X>V#NOX:T6M84]GO)NWFI16S[T*8'7 MOQ9]:O9TUlY.:.:!02#F#9$]$@P0B8)BWMA2]GOS<2C&.0Z1($=E=D3 "N8T MP:&PJ]5K/)B7R:(@@@SA9
U)WPK00 @':;?/.4'1]L;^ >Y2L;F95Z;TRY5'; M7&] OH6V^OK+C3(?)>(3SA7RV7&Z;:_ GD.M!V%&W*2<1>K/2O@Z#C _+H1]M MTQ80>0KRJ/!:KR&?HC!#F,:N; =V7YF>#;_"UM?JQ1B9W9?
Q2==M\]F=Y~ MOVLU@.OMXT7=6+MYJ.G[D%[H.19Z%$;$DC,PA*!A9%ZZGSWW9)TUP\.:"6>69#T?W_$?M9,82:] MBN5'G&N8Q'<#]WH@VC%.0NI98WG>IO>>B7L@6G(Z?E9XA3"#Z
M@A@1%BWCF3S-B^3:*<0XQ$V S!G=WL@VW=,\V<5N9?M9SI:,)=!.Z&E%HM:T M:YZNJXG=O"I Z#"9))\V*C/H8+5(0'A58=#ALSH*^72'6XO.>MOQJ7/_17*R M[GG/^@C,/__17))5!F7^>8Q:#
[@:IF5<4M56@'RR+ZM"\;8J_RI[S0R897;. MIRW'#*!] MBGSI [1COH/"YOK.DDNS$YOC-UT M^2;U:,)LSPR6 BWDPBV:05(7+('W:LLSPV<)6FO8;W=;W RB+(/CD[LPKN2\ M,$FCTK]/#J0-
4%U*T"=OT@:?P:/9=N """ZN:>@N^Z*FM-PCEPW9ZNH;"RW(D(HV> HE4NZT6Z?!M#O=D%U4]"!57QJHOY"K%7 M98J.H[PUA$F>+1S!ZD
*ZV_AM(:A'>FMH5P)GTD)@:328]W75G4@MWT)OI[31[*]$^+ZU6 M#Q L5_LXSH"-DX0^R/M"9Y2=,(APIOABC6T.[;BO=:TRJDEK0-A,Z%3>2TI@ M>8G8=\C.Z8SXM5GZE.)2+"$W+2TNYLX,Y/;]
MI4%(5KTA?TP1 :*_P!02P,$% @ ^H$ 6.!R/8]1P \X% !4 !D M>6%I+3(P,C0P-C,P7V1E9BYX,6SM?6MSW+C5YN?=JOT/WWG/*8\IBDTBVP:05(7+('W:LLSPV<)6FO8;W=;W RB+(/CD[LPKN2\ M,$FCTK]/#J0-
4%U*T"=OT@:?P:/9=N """ZN:>@N^Z*FM-PCEPW9ZNH;"RW(D(HV> HE4NZT6Z?!M#O=D%U4]"!57QJHOY"K%7 M98J.H[PUA$F>+1S!ZD
*ZV_AM(:A'>FMH5P)GTD)@:328]W75G4@MWT)OI[31[*]$^+ZU6 M#Q L5_LXSH"-DX0^R/M"9Y2=,(APIOABC6T.[;BO=:TRJDEK0-A,Z%3>2TI@ M>8G8=\C.Z8SXM5GZE.)2+"$W+2TNYLX,Y/;]
MI4%(5KTA?TP1 :*_P!02P,$% @ ^H$ 6.!R/8]1P \X% !4 !D M>6%I+3(P,C0P-C,P7V1E9BYX,6SM?6MSW+C5YN?=]OT/WWG/*8\IBDTBVP:05(7+('W:LLSPV<)6FO8;W=;W RB+(/CD[LPKN2\ M,$FCTK]/#J0-
4%U*T"=OT@:;P:/9=N """ZN:>@N^Z*FM-PCEPW9ZNH;"RW(D(HV> HE4NZT6Z?!M#O=D%U4]"!57QJHOY"K%7 M98J.H[PUA$F>+1S!ZD
*ZV_AM(:A'>FMH5P)GTD)@:328]W75G4@MWT)OI[31[*]$^+ZU6 M#Q L5_LXSH"-DX0^R/M"9Y2=,(APIOABC6T.[;BO=:TRJDEK0-A,Z%3>2TI@ M>8G8=\C.Z8SXM5GZE.)2+"$W+2TNYLX,Y/;]
MI4%(5KTA?TP1 :*_P!02P,$% @ ^H$ 6.!R/8]1P \X% !4 !D M>6%I+3(P,C0P-C,P7V1E9BYX,6SM?6MSW+C5YN?=JOT/WWG/*8\IBDTBVP:05(7+('W:LLSPV<)6FO8;W=;W RB+(/CD[LPKN2\ M,$FCTK]/#J0-
4%U*T"=OT@:?P:/9=N """ZN:>@N^Z*FM-PCEPW9ZNH;"RW(D(HV> HE4NZT6Z?!M#O=D%U4]"!57QJHOY"K%7 M98J.H[PUA$F>+1S!ZD
*ZV_AM(:A'>FMH5P)GTD)@:328]W75G4@MWT)OI[31[*]$^+ZU6 M#Q L5_LXSH"-DX0^R/M"9Y2=,(APIOABC6T.[;BO=:TRJDEK0-A,Z%3>2TI@ M>8G8=\C.Z8SXM5GZE.)2+"$W+2TNYLX,Y/;]
MI4%(5KTA?TP1 :*_P!02P,$% @ ^H$ 6.!R/8]1P \X% !4 !D M>6%I+3(P,C0P-C,P7V1E9BYX,6SM?6MSW+C5YN?=]OT/WWG/*8\IBDTBVP:05(7+('W:LLSPV<)6FO8;W=;W RB+(/CD[LPKN2\ M,$FCTK]/#J0-
4%U*T"=OT@:;P:/9=N """ZN:>@N^Z*FM-PCEPW9ZNH;"RW(D(HV> HE4NZT6Z?!M#O=D%U4]"!57QJHOY"K%7 M98J.H[PUA$F>+1S!ZD
*ZV_AM(:A'>FMH5P)GTD)@:328]W75G4@MWT)OI[31[*]$^+ZU6 M#Q L5_LXSH"-DX0^R/M"9Y2=,(APIOABC6T.[;BO=:TRJDEK0-A,Z%3>2TI@ M>8G8=\C.Z8SXM5GZE.)2+"$W+2TNYLX,Y/;]
MI4%(5KTA?TP1 :*_P!02P,$% @ ^H$ 6.!R/8]1P \X% !4 !D M>6%I+3(P,C0P-C,P7V1E9BYX,6SM?6MSW+C5YN?=]O

#K<%=U0KQE(II]4Q MSSA;] W'@G?0>;T/QQ@!1 MQMT9#CC,5F' R*_%@F;PI0,C8SOK#K.U,F"BW->5RD,R=AA&VF2\0!<[VBAF MF(VK 57XH1MYBR%RU.5WA'C51A<7"W3RH%E]3JZ0;/;"HUJ.?>TD>6:,XJO&FG#6)1ASI%EH=E$=0)+8 M;A+5AX#L"/6<9"?U!\'2)%8B<:+]L9BPV81)K:XZ[D^*C!3Q_B5GS:EU+1_<-M?T)=)V AC>X-IM%ME(>K3,XK>LVRl3S)GE[#@+5V .F6"BIEO/PDB_I,TW9 ML E3BM D)D/:)Y?<S3V2?&XGU@=RS5E7QKIN =OP*B2F%G0EO13==L4*PGCU)))$N0+6IN=_B MKX1G4H0*>6S;U'%/(@UP8UNOJ"\9I\E35BFNT,X)\Y-<>)^E'GM+29K\KBPQH M;\ K_PV(*,9'<:G<1<]RYROU*0TA0 ^_#&@F=-%3O.3>"$53#7%\>-29KB>] MC@6LEUQ*F1683A/A#**%/R%'&A0$;S[_MCR5A9&QX0X)+2'#9XU=WV#?+?U ?SRR>:5;02\X69RPKI8B*03HK1"[%#;_X M%J5%K$2,D&<30>-[\DW+K?63AF#<=*[3-0M)5$=P$<2KXJ'7A0*2T]F^@\=T M]+7M'A+$>L^M.9HSF94E$1.UOD*TAF3L*&^AV8"-)H80 OF8M1J/L8'7>B]#:5&?R6ZV0K:05KZ+!%M*?8\F&6T*KH IA5E MZR@D=/M-)|K@@!]TR[D3;6!L"[K-IQMI?0@2NJVH$U% M'>0L+^TKTZ$V_GX M=E,P7$911,1\,DO95]<91:8'#YI1U PL9!2]R8RB2-VR1\|lI?]7V4D425D3 M;W,HUVBL CD!N%&(*BEULF \3WZO;DB5;Z5Y6>'IAM-%4BSJT,9Y@=@/HO\C7 M2@DZG;VZAK,.9%-;KZ$?) &_B[42>L]NJ90J49+2% OX/3N3 N6&L^=$BHS3 MU8-07W]L.CN11^SG\I+5AA"B/E_E=\SV9M5T5B4+2W3EV5;"=#%;UJ.'&?U MG\ITE_^8*^E_&"5<5?[$4LF2/J}LV*I+&FJK*>479D4 M$-M7JMF3(:. ,)XQKFZU/12_:]H7WZ*YNC);U9:XF,VH/J%J$! #WFLTYUN<-@^)7%1:IIFY&=SFR_5)=G-M#)=K7#H]HL.A)SFE&!+ (>_$!:=5.B5,K.[.(3 M#WT/3N?0>'3KS =T@H=MHTM>]#5$KK-<8C@*&E,\3]>OC.:'-'\"IFBI^=XUYUP:,+AK0-=P+'@'C\0&;ECZ MAH/AO>H01H-ZW]S!*_Y[=6UGP5>.*H&^88C0]A*SW$+ M. [@Z,=IPY+,[*KKH3L,78E;G:U3A6'W-WI&$7.(^:I,..KKHZA R-"U/0LA@ MSR&#S:Y]=%N"&?.K:\DMO>;H/B.8K)43#EVY*#! H)\.78$H,,$VE_X@]1 %MYFAMAD17*0K^.3N3PE*S[26C)B<4V"* #!F&//.TD9S;0QOPKS)P AKXV Q M;R?020M,E$ G8*F5)C/%YWX 0! .:>PP1XVADSIV'_.R),>@DC!TY4,(C.E%C MQ[$IA@&A@F-#SS94"]$TM:';% $$I/<34GIV"20[LCZK6VQ_+,I,v/8P3F@) MLG.%BQ9O\%SEHC7"%I4N'..]&X-B07T\9^__NQ"5BGC//+#NMG<>[!>#N55? M01[BZ1WESTE$;\KR({S2\9G_.D+WFXH,)Z+9S3VRL]*BV"<41XG8J<8V M](T/PL"W5/$<+P*[9Z(9!?
=+P/JQ:,,"P0)H?D[(VH)F/57'*/RV-A^]!PH MAXDT%CH;.C^%^=Q7:\+OD&CA/N_+E#H#^S"LU7D2G4<&_"6!2Q*=5P9.T.(& MA\XM R8).95[GJ.@9$PW-]*M\ D91#U\^ S#Z_KE6P!!S]$D&92!*X2J7YK(1X[W*Y7 J9^8[XR(}$ZI&TJ1="^G<6\2GJ8L&5UL(SRY%FE;0[>7=\BZ?#M!.4X7Q\ MS.=C V'BIKO+=5>7O[3PEH75"D-
P4V_O&>MH_9J_#GFB&TOY#9-*H1^R0;YEL*G[@^ M,:G'XUJQ/;B6*[D,2]1I^W(E G9^_O&.G]H]JW:]XQUM ;86RW?CFMD!4OQ
MV(GO/@:X%Q!C&^<#U6*8D6X%8UQC7:.4##'6+6&.,ZQ?JC-##+,] O\C?!`D M>KC[/#:?[%[/1], IKK"\!A86R2C&G&] MQJ3C^;&G$>^)/C]C[VXP/!Y"$V(<0FA-B$-Q6;X,FN,[+(A4$M-2.+>$"C M&XTL8,*S'7JLN6Q]>S=&FMXVF)4B),^.*GEN0$OX6#/O^O;9CS8=,U!:,/W34 MCDVQ;@QH@ [,Z'3K7MT9T%%#J67W%]L&'99C4Z);A:M!!PNE3CVDWP Z<"B5
M;@^>+"QA\'Q;+&0=!5)Y&$TST+N^>9O!>]N8(1*^V23\AB/A2Z%P+]H*#E> MV\9S.?H7M8(>U'2_O7MHJ$H/Z(.KHD2G&E3%PZXR2;@H]=&R2>M^3K)#!?35 M/E@:5\ZE7+DD">\E"+47<$?R75Z:MKR/?/WKCW)L\4W[EOB.Y.M'DIKG'46HMWYZ@LODE)=DT6U'A[69^O"F,&?]6@%\;%"%B]739$A+:IL%]O MSW'B$(/*G=$%R@\L89X_-<"5T.=G9*TL;,:C"B0==#Q@NC0D!Y"& / 20.S{J MO;7 \MXL06...O=NQG]KH>;]FMW?6FAZ)ZOBL<;K#V,%'<NT<4#W\%&O@_@ M6?<;U_5QAQK_Y05X]DU31*2^\2$HEH:0W69!_,SX1U26M)T_.A]9R]X.(__&<]5:.X9 MXTO&Y:(X95DL:F.
[X!\VFKS5F&D.W?N_\HY)?KS7GS,_(YRODNS)Y"BUZHN MU79:GB=*[2ER0!1B9NCOG9TQIO&P@5=\Y_0QW|UK]G>;OO?L"\G+G>@D3=E7 MDD54*B5GG,9}_EE?
;3|@ .#P74@IE/O>W11P,LLI=S<"EH_V.B;,M7(B!.VE MU%57A=-XFMTJ-BJ?5>JOB7C(V,@ _+G*,%@6N;KE-5/W#93:[^FJI'Z6$B&, M[MR^7O?&SOYU@[K#MZ3V<1F"UQO;#X5^^]>_) _+(O]/YZK.ZJ)&!=!Y&%[E M!!(EF _&K0S08W &'ZT9?,3 8+W07VKLVXD"$QDVSSANEH *NY>*P4YA.(FB M8E&4E]<\9+RZ0%T]#'|G:J^\DE/O?L#\#?H'=U?R * .DVAKN!^7^GVRLISH^C@!$ S3K.
L2KH1BL$]KOJJBH7%!_"M@R_?>LBC*[E)^"M$TS5V'4,LTG("W3\)%.EH)c@,;H11!.G1*I2%T&H!]S MOS4# >"(4A7X&A7> TR_5I2?1XW6[&"S^& 2R2Y*S^!H>OG[\U*,N$G?WW#
MXNV.YM5%SI5%E5:.[JWS)BK70[RT:068-06E\358&IP0KF@D?3%D3[EG6YZ82 MDT[97]"2;8NX/E0Y:CCV:7[VZ>ZI?VMQ$XZ2T+MM9A,M/F7,T(3L3QFJB)RD=6T7OV+LVY/9!&&=?.
M%07$;V@5I5EYS^5P&V5+0]/W49\U#"X%B2@=@MPSTM%!.D)(0PEI2/$O5)]+ MP PXJRIH,*>RM6B74?D@9K4MSQZC;/,#2. /*O*]B=")H4\.GZPR;XF;P3=Z[&_ "%YFN]Q^@/@/<
M)&V0$P@06)!UC3_(?=VI#++#0"^QJF/K]60G$0G!"PA7.?D*80TH5F-4C:@JI MEP/J]_R $]M^)N@@?=&8T?FDO$*3IY,>U^?I#&A^5IX5-*;<:(23-;F?>SQZ
M"!2HF)';8(3:Y^!+X%\W/RW);3<#\J)YY?M^1GO5O50Y=D HB\K.M4 K= =4 M#1(2Y]@7CDAl;DJAN5-^RO!!)DR^U,&HA'B[Q;Y/HXL/HK/ M-@4WOKD5OF8)S5#[R29"3T$+ZH0%#VS@OWH-U)
[=U>22SY!<=6E-\95R:]@=@=Y?5O9(;S!=9QKY M-N8[5EP6 $FK]ZR4Y0O:!(V\$]H@P7WJ:[%A<,,CKUF>@%69_&U;0HD>\#T$ MN>U973CGFI\&G@9BOL) 81D'D ,'9PS74A_ME',A"U64E8L M_H6
AJ;DJ2/A^?M<)A;>E;M%937]6Z-BD9OC^"R*]_0)[IMV#5 E')YLSE%. MYF!EWHME=5YN7Y*(A\)D9EFH+;F!+;JOBB"B;R|&*)?*!YO$TEWYJE,@Q8RH[
MV*"_DA1I&YF$J.M&!F*!0H<"'4O%:V$,K[F#,\]J$^D)AL!^1*VVA!F(Y5 YO<&--C\;6.AR& MZD.H2TF!PP#U%!38RS1Y%JIRX3V\0D$MQ=<P?58O%(^3 MGP5^ @000<' _-
X<"AA*&RXL8CG'1F2*2Y&IH?F57.?G+UQA14.1S2X9?:=+E M_+3,.LOAL./3?YCV=#[H>#KO:;$^'W/E.T5HXL*W0I@WQWV6+BF$6C>/K.3% M?]&HF+
WY\\,1&E.]:'>FP%T _^B/:V9!O#06!"9Q$O(;RH+TC$;9J/$89=/ M(VXWTO&+B >!*;XNN#7+G%[W'D[.1ZI=]1P76N-]RZRNL,<1(ZG&7O M^(O7--EF]'HY .!XHW %-
R!#L@GK7['>"TEW!#1+L,6F5&.>5;!MJ10*24/:O MAY1]WVO#=7O'=U_US^4BXT@:F)\E#KHS^T=7?Q+M;RMZ-^(6]R!>@0XWW5# M.VUO*BR:G;;8/W//>&\AUW9B(YDLV&SVD-
5]$V2OS'1_/+=]86\OS$K^CWL=.M7.1)&ZIYO3P,W=R'=KWPB6I=XA2CA="_]AVXQUC\1)2P*139<)1=T,\C]I M^KCB]_^+)UI$CU3\)DU4T[%:!O0%'}A4+:R7P5%9*^ MV2DJS7FX5E0U.?
^_GK(A:E[TE)\'? -ZZATKEC3=B,MYZ>D,.3-3D/I3,*U M>OHD[D60F@5SX5>GFC;^@Q<_?O^_AS9"R9075807E%".O)-WW'WP;R V;L9WK',L3+T+9W6'[?K!UJ$,Y(/\< WW*WI_(8.UWI" M.U7J6&
[:.29?1QG45.*7I;M/0D/7;I6YGH!FS#(]YG"L>KXGV)&Z\GM,#2WT M-W 6';XI!G[;G^U)=$BFMY?Y6:M 4YZ@4X=>*Z8,#4:3U],BO7D1,3%2\9GM MH\SKR1'.^WIZW[IZE6S! !$-P5+$FP*7A^4?/]
1XUSI&W2*^ AL?]4^18+X M'CWY7!,0*D-9W3 M1[YY-6]';.30MWT?DNRV *$],PG]OU[NFYSPW_V-QB=E@C"?6@KL'T+A-XZ? MKR$IHSK1LA?%SS?(1;991;_R[9]%'/_H8HR$[4]S>/Y' '6;?
4^+,"WAM?K(M+|[\AD)O ^NON#CLO@]X/2K=5 ,:HR"!11?Y)FU/RX\L% 9GX)IZ6D$)AXQPR M6>GYE^>9G-TM74=IGN:/ERP7!8BV4>:D;H\Y);X+^N I#JL/GF$M&@O"8:-(MC:T5?
XYZX8I/*.W+-!8/X1ZVOP1A^%U^1%C(S?S<=[%LC=ULUM&%>XYVN9N@ MC2D\X6UM/T$8DU:UL_3I3*ZN&Z,Y)NU@0IA3HH'OBO'V/!I0$.C@1%+O> MV#V2&8. .H:%XBB$ GHO- >-S-
I%-!,3BJ6N\ZL_F..[-]-"^<'0L3^(+=#Q+ MZ0]FY_E\3R]RA:/:<6E\ >H4I-8WK.+^. .;M*"Z-91TO\<^KZCB\?<JTP0 MYH'6O6Q-7EAO^,)77*)%1:@5I^6L8F=-G:C=GI:4LC,V:ZMZUZSW5,N:1%
M>9$G=[1X$MV:KY== ?O>^^T]IZD<_M4;!C:!9#>[0('<\#9)<:T3]NT0^@&& MGVOD82*GG*PD\[$\AIT[KO*XH%Q5<=M$_'F57\1QL87HA;I.]9'HZWV$Z=LQ
M"=RU>*!1H7-.N9H7(CBXP=2DT>)_U1_MWT/81GOT59+P XE;XA#H42>6_,9_YQ7UK<-P#'^.M], 01R:V,/?7$,&<7B> MCM<83=>)N7',S#7H:&KVGV<3T>A6Q)!7Z
MK!Q2CLAP=5I9)M=YE@[D_6;/L,2<*['0V?]LU_KY*(*W7S=I(3X*]@B09(12 M!)KD^BPY)\N(+2=28KNDU][<]IFO^VHZI)D@:6=(Q!1]6FO!5\=1TO(!\BGP%SF,>A*>8R38[-
Q_]5*?"/K$EE/4UUW=_[W83X M(E#[=LYJD#A[SZS&7+QZ%IWR.$Q1'3ZELWI,__5UN/7:+UI6S^SYAG)C=K$- M[R1:;,:CDZ>LZM'^1EZ<$?
H4A/)#]%/J]5H9>7&.80UB/:70T>2;VO4X>;#K]$,OLK>]WP10 MM9Z>E);C?KI)\<@=)87K6OC:*$#Z%988%W1O?#1QH>+8^RA7Y"&@"!;=UI& MF#;OO&V(M^M-QG:4WM),9#NH;@SE[Y
;9!*^\U.B(8!\X:JK%'[O!YK395]% M<72K.YRAN6@84?Z&EC'-$V[^W1?:LAHL$#L]$!.Y/@C0 >-(BY0(K[H58-V1 MCXNFOJ4;>-V!"O/$1R?[655 3(!(Z7'Q8.L,Y3GUT649'1W%[.J>KN.LF54
M/,B%>GHT1K+E4%V+=X.9"-2DO8T7F4JC<5(O RF^\K>'=ZZMO=GY9:23F>!D_4W:1EGK-P6E!2MV$-0 M=-R;9<()"R#RDT+#M'@X'[^1_M-$+Y32WVOJ -+YO*/VB'O&+ZBI6DS8 U(.;36 E
MFQHMTHUFA7)<+G!-?H-;T8'F>!XH7R!F'NX<@6/RS?189IK>$TS^\ )'E93AXRM"1C?4T_F%"IO?5P\F ;+#*$5ZLOY;^T)U6@!N MM*^6QO-M<#HPVS$$O5Y*=828F+8N>1[<1X?L/*B&
[#P,ANPH]!;TD6'UC%8* M=Z9T+&Q;OG=\(M$:;!%(E_^R2N,5>10!:_S&%D=02D54^&HO<6Q)8K9>\T4N M*Q;_JM+V[7@OV[Y60U)P+XEX*]9S8;69|_7^RTH(#3VN&SR2*0T3-[AY>,
M\,"51YY7,D!WSAF%_<^6J6ZKWGP+O+%?U.99.E(GM;*;FC4F*2#C<0+*(0+6 MHP/"! 98"PF8331 ^#@ M1 AZ__'[CIR=91.2W,XR,QTCP,T:4X?RA^0V]\ M%B3:UA2,17I@5OZ%>D)$F
;3GLUM9]#TA:/[S BF8-V03BB:0X$?H^(CDM[R-V:"Q#L^=^A 1=\54+^CC-G$<^G$ M4(CA[P'I6G="'>T.K^F3J:4Y6(EB/YJ6?]-G2DJ8#MN\&3_"IZR;(GZ%=(D M&0>N+UU/MA@NF>A(
)S1MFF'N?O':NN+-HP>U07-UDSPH:3P-B'("-;1;$)&F":[#"\4'UG.?[W-$]AMGS:< MUKQJ[C6W-*:I$SUV"^E^AKEH*(#W$KBE0(?V!<3)W! ; HJ][0DA#26M;V1! MYC5!X]M6?
CC=,3/=33O=HB$MP)N*SF9B6"8;Y\S7%7;?IS'4X[BE3S0_:=.K M,!*7-3\$T8L"&$:-2)RW,P/$-N]*(S>X2>@Y&._DI)U1ULRHJ$D)4@%@5-;9 M!NN,'8-ID=Q$1;4;\P@.C\&Y @]AN?
&4KK;5.FG5_lWNR+M,LE5V4\1HK'X+J6Z-M^J?H>=KOXVYV- ML;C+:0S'D'8E'6';;)S_8W\=17:]%+\M+YZB-_#\1TK1+BVI[=_173>T_C' MR9I//,$_7Y3]VWS,E"I\S].F2WK027I9@(% .KL(A.\"
MFC<%6]*RY#,)LG=4L8KFQ$=FI30EP#V]$+ZGCU%FHZBFM6G@5.DX%2'+:TX) MSVF-3256&EV^"X&+!Z6YN)GS(8U7$*>L&%G"+,O>+..6I@ ;2%&4&(*;
MID5D6LPTM!!.'ML3T;%0O&2E4YP5E&LPD%:CU]\A8!!PG M\A#AV:3W\QM9>C@?DFP+L1U6HAJ]+009Q&W$F)8I% H0;WL=R0$*STR+$]/D M=*BZ:")X3:LXVM 7=BJD]2%[O%;(2+!0<4
M7X_K6%T,65F,?0; =%*53?@F/E4;=`AUHMH@&.TU#<,M1X6/)NH>[>GNL]'^ MBT9%0'>HU3USL[/^TO[2&ANT-YTW*C>>+QX+2\3?2B:$8DU8"TO56;]&2#B _^ M2F=M"L9>DM-
9!:C"30D)TV';_)\ Q7 _^P@UN;F'7N_/<]l/G" K?SYP#L$^ M:7. 9J_/F59X%N9L%G^0AO;Y'.^VMY"-%\K)-7XFBNR6_GV;EFE%[VCOE.;4 MI4:,P!5$M4EH>AXZ3D*\?V5GC8LAM5XW"=+.XMGKOZD-
9T1*]V -XUX5"?T M,)CDJBRW-'32&.)DM/!*FW5-$X+VD&2.IXRC3;0IG<+PUE9VV]W+;L;5.' MMU>2+0W0TD_9:,=,%,'0LT9<&)]9E/=8ODD+&G.A&7MJ51B/>F@=@>O\57@ M)@(YO,UTZ
U>6:U.Q_A>GN9+3E!]#!5U_U'Q\BJ=^%I0&N0!5D7 F#:,O2G[MTWH($PG5TQ\@%;H8+7\-RYL U.B"BL 1 M]TZ%8@(EWL3@*H\+R]\X;VC]YU5^W493O(=_MRIK)Q$1[>^1XJ,.QU>5]!8[M00
]BH<2QC'A<*8XEXTR04%VF;X ,F->AW9U@@?B'@K)K>AU3@?O M4@80[+HEAS#YK!/;>;[VGIT%:0@BG"+%*YA?=]?H\DP[L:9Y/B,)OO _"#"7X M!((S">XPS4:.*,45SE^#3Y=&28 G/_4GP=K/)!-
>C#([JNO&22&8GU+3DC?.11&1#77@!DRUE_@L3 Z)9)W^$ML.+$ XBUR M6&!#!0DCZ42T(;Z'3QI[/TQ8\,"LG$NF!8983G-[ID:SNA8:1'*%!D1-H MSLN($;2H#2H'6*!<*NN>'Z9J;
(T;_*@#F89HH"(7$J8(<-I?G?H_B7_XAV MPU>FD1$8*3Z$Y%]" 1L!=`CI-278H>1VLPL@M1*)8 I<\U=AE[/T8[2F(X[\ MH2'86KH]4,[#F/F_"" +Z?>GIE7,#+[_A5^9U%--
ME<;\5L*OS5&>TI&0"IWO<"?=-'SWYY^@@1P2 M03HJ3(Y%%[,S/BRG)ASDI-20,X9FKZ4T]\;M-K1A)$-,$MH;4%[JI[1[A1*>R MHVE&!+5VZ??!B+92E;3+NF]*8I>B$-
H^Z3Y<8OVQ+!GTP_RS4KLW^4J2OG>_MSJ^7]RNJ&PBH\3$^*E !B:<0P982)8#J;$?,NADKO:C!YN+'_!@;]^3#:Z.]K@7"'3I<:0_1$I88H<_M'!8!'NZ8!.31"HIEW-%X6XB0G;EF70:0D!=M!$;G\:>#
[:@6=9&ZCC"RIXO\ M#MV3RV3=F.7%,*UEP#?_?_*EN(V^E"P?*60P,@Y5Q6 GG.?#R@Z0$IB % M#*Q0[U"7'TU1%6#,8EARHSTIM+?I&6%5RBOH%S$>Z%(:_FBRLJ+,O3+Y"U?L-
JX\3&%P##9X ML0_+I_X.%ZDPS#ZFQ!-O#8Y!R<_#+M1QP9(3;BZ@H5D-" M$<&L:M0Z$M;A-69*_/ FK+>TK(HTYJ;^7<55YZ<\K12V M\SC9#CD1V(E 3UYP LKOP^:AJ/&CH?"5
"=F30N8U/RL!$&4]EX\;M@6OAOO#S>#]K;KY'I&K()"G8[R0*6,Y59Y\Q[((8!RVE51IEGS;O>CW*AT.7 M1@;B [@& 'H*8QK C(@+LD(_*]1)8.:[G@CZ>PRE7+#ON:V *
M!A4!I8 _R^Y'T(5H5>5A[@C-(>@ZM!H:TDA#&^D31V:. 2N^9REX MQ U/-GV>5"VI]Y0Q.#),]S6PME;_')[A/]:WZX*4?K_$P_07V*4@..?AK:=*H M#0H<9P@V>A,RM]S>9CM*!677&Z!I5.0FQR,%3
HW>(F0FIBP8C;-=;;-2D,S M[9+E3_O(YL#A01_^7J4/&?W(*EI>Y16[%+5 !0WR\"HT$(R)IHW,>?A?1Q"Y M7I(>24301(H4E/5^ G1D5L>YF[%/.%$T"HJ=N0IRK84?!QOCRVY8$OS$[Y?
M4V!06V0::]@D^!%F-E9&W_OCGF5BE+?T$NUB\]\^S7.M@E-^'UP#2?;MA: MZ^7;J("PO/*&%G4 PFX8P-@KIGN,V#=1=Y0Y?V'M83X(+0[XW.IAG5F Q0N\ M-
2=CSE0_L[I)/.:"#4OZ8(@8\)JRGBSQ1EWCUKS#2/PW=]4[H*""Y7ORF WY7FD-(MY3X[8#]O$ 4$FS*HA'CD#41^LCC%C6:2(RP("6U(85$'2VA0H.Q:\/L,=O?+BM=T]*@";SQ$,?
*@)=%0W<@71&$NKE)C MJT6&:7/.V_XX[=-R$VI0D*8VE)Q_AC?L]_SREKUM%$^#H&GD.73?5AB.N7V/ M@'6]%P1J1=7KFG(K81O1&H0%G*:9P=3:G; @<4U?
@*NXBO@P7]%AUQ&1;&#RY=@O2A\".6TJAV\74/[!]E]W0)$]+4(C=EYC:PBS>-T MPT6WUZ4^T 7#?'F8 YX'DOA[6JR5!+D_T(I\ D!_1_5CS+B+NCG]Z!MZAW=! M #-Y\5\T*KZ?P18Z$
SISCCEEC>!_YGFM(BRBSRY2-9IGH(+#=[OFG-((OV* M7R&WP@=1TU_NB02^>N:(# H((E"]O&9*1'7NNWRAY6>[\R]+#]IV1]E)QM6T($ M<,S*B410AW50!Q\N3WC@=7'AL?
2HK&K5GO1_@9#JD=57_M9 /"9Q>'FJ ;4B M^FK2/1V8]?1C! %:*33FLM>41D8Y?82JJ<@Y-=Z90.[)Z4W $%SS MMN__3+/DGGV(*HB_WO6B_^-XN]Z*8K:?\H+&[#%/?Z7)GUD&KH21$FWF)%:
M X_8EU+!4XC9H5[X8E+GO"C_1'>DLF6&S05E0!9U32)6G2! MWO0LB#.SOR8S5P_RW-TS %Z50_>CK4=\'CYR;Y!0-?I;D M&BUD)6W3) MKC=%&M-S[4<*R??6GR2,\(3Q!
(\09.X@MCI;&W[C'D'M/T1RO*")O$ASDK L MBXH2NGZ0$G(QY^!@5I%.I1>9T47PETN;B5U$D^'2\N->:;/L7FE2DCT99AS M_X%IUZ:$O/RS!U$_).Y1@=F?KB:FIXH$2.[J8@N$;:8GZBI_5D_.
MF!F/PO^;72VJ&\H7+:^B1W]]%*(G=,5]3D^2FOV6()[^XA5PQ[\X%4CT^IQ M[(HSU@_ICE"RIQ2B@.IJ-?6YK<0@W$PO>UIN2K'-^813--7VXJ/8VD*@^.0*4E M'T!RGH+<8#-
(-3:DUU&Z6L2/T8:R$.G$P^+ %'CF[0S\P'*ZJSM!OMORZ[W: M Z;B5\@S; *ZZ]T@T#<=08D@8 [/>]HL9T@^HB2NI/%O'MG3#PE-:V'C?]G+ M&/ '7R_XKDY@9[_+HN.G.NGO=37F,1SGI6Y:9
2P^54L4IZQ2488=X3(4U8(M=QA-X->B9IK\-%09C^L!(8?K_+8F<),&.0'L3?E l-%I=SI6 LS%M(ZFVB^8 M>,-%,2U+5NSJR0?I?Z @7$R;Q8'NGFW&Y1M^559ST@Y^8>7,> #9I7[J4DT3
MCFT&EY9AMDHO"\.]7J:5[]*@T25+CHTSV:\1IVD?C//W)2A\#L@(8/-^ MF YRC$VQ@^ P<]^D0-Z4U,3Q!1T!^P:PEYLYV-?ACDIU0]RJGD37X^E?1Z M^;:L4GXWE]:;#P]"RLDA,-
>RP;&!"ZS#MZB[I^[(Y^;/T-69)+QE:@SS6*#F M2Z_W:L%R_M>X;FE<,[+^[U3!,"P8='$:/72NI9'3<]#(]X"BV8DF>K&8K14P M;5[$UZ'7//AR6U9&1<>*2:I]@61)- K9M> !]H-VTAU^_,74]HRP5]-
.!*"2 MBI$ES++LS3)N:0K1'D=-E!B"FP'K9UPVQ=W^,ZU6+8UMG8^=1.DCH5BKK3&* MS;EQVE0=VE?#@\20A#[1C&V$CY]9.FC0I2"MQ(5;JLS6K!"@^7^.CA!B$%Y MO<\HEXBK=!RV6],Q/-
CB-02T5GE1'B6_^HWM$A9)MKQHAK3\#'1'I>+-%-FD]?*QS\V%=4MJ_*0=5A&6@?_M-8:;9QJ+?BV,X *EQ''&X:(W,;LIFI-92](4OT(*VP1T]W576F.E$;E:Q&8E M>:H+P!:<=>67K^L6O4O+,_J@&
<_2P:\M"!#.?YZ"4CG"JS&2VK$!# 3CI]\ M\>VM5>(KTV%6J)?)@7SEA/$+:J*]@+2<<0>3\V;!-KBTF!(BVY'74:Z2^"(V/M3>.)KDV &W^P\=_=KR9E<8BS#4I3.?.R@9Q:[#5 MJ(G
[=U>F^8LTV*7%V$!>U%-5$Y&&@M*!]&WF B[?@Y")M7:;5[EV;TXW;H,7ID"$(4 MCD$Y3Q@2^ @@)#5&[^LOY1Y388G357^[IL4C5(0HV)=]!?FN47[\=]HX&BT+ M@U
]B46+F]3(28,]D(B,\Y=I,BV06^A=%-.Z=K22$^ATN!67SQZL\WB6(LIC M?I8S]%-J;C@TG#^ G-0$\,.6A(M>R/C\G&,+ZYZ#'S&L^K\VL*< C#ENF.3VI MW3\:"(U#/0E[NC_N@J3/+,#\ C-
9]^48HZUBQ M]4E9OQOO.UQ54IH)>YP-7+!N@,!D%2)2NQDHW%!YL\-XRH"Y7[BUZ]JR!=:4+)I"2\Q\)%&O("Y&Z8[F9FTAB;27:[%38,*:?'GP;8MSI"R["K MY?
Q%J+CDB_/("OD%=W"4T;M0!\WCTU!!6J0!7X=.V7CR0'3A32!7_\775!94 M)A]HQ;T/ -VGROTXP82-+^FD.R M47'#]!9HB*L%7G^9G04)F.=P$IN4O=9#B];*K
M"R/QV2E^A73934#W\K0P30;&86=]9H@'@P,R"-"Q:*)GX:"#S(P\TCU?KJ. , M_+)*XO5)\SC;)F!A/6PKDK.*6OCKM':!+D@99;3D^NJ)YENZ:)&7/0VV(+2* MPS@T57M,4?JM:2,MM1UD]'VP3% ?S;
,6;<.6],/Z*-^3U\ MLN]M$,@4E\H"4V>0-OEO:AV6*B;RZ%BDI _"]"7L@\A1G=?LS)Q!+>8R6U/ M]4=+#HE]I(OIH3G$B7!>57.3+=W=C1OA@7'];%2T-;]2+;K*)?=^N1QD>2 M(1@K]
B4\U8>+3K\<[QO;Z>?CO" A@V,HE@*DSS6(KLR);:%Z&0M6%0^0!= MBDP.VI>.'Z,!H^KMSLG2I2MP'14E$6(8'H:U(1Z=0S]>0\FG-OV%1RB">@F/ M:+'F&\3/T<0C>'%ZGYZ/1U F65-
-^P%%&^KMOB+N9N/CKA$]$U'<' B:]/DR,1P?K2.!ZBM;AV,DA M^K#U(::XS+19YS;>2YAYV56>T*__0>7QH9)O^ BO0WB^OKMJ$&2@)1QOQ]@N
M"3>9,HO\75AKG9C^"MJPCFN^9.58S*C"%]CK]ARR\]#^/6K2A?D#\I#QI"]< M9@CV.=4XM_0Q+3GR,[LJG"&AZ'US2$X3^IFCU1$_P52-A)..E7VA%8UHU&C M2M_853=^XD='%$[(&%(U?
D\K'9-H4I3:&90BV;_1:L:/;#3])8@@2%G&IOC@ M3X\T80DG7LS1YR3-K["Z9!RZ^[+Y-7IRZIQ6?(9RI4\N&T?L3;0#+ZQR&H+.=ZA7 M:@7XSI^N6[=[0X35[(W$W274-
#%\&UJ@D,\>>O('$/SV:E==I$D?"'*YH_W M:7[R#JXT%FVO#<#T9+XU*!?M7P@=)]:-^D0-Z4U,3Q!1T!^P:PEYLYV-?ACDIU0]RJGD37X^E?1Z M^;:L4GXWE]:;#P]"RLDA,-
O=V=[K:;39;JWIT4 MOT+>G2:@.W\[:=#/[NZDRG6&9*71N4_CI)&W.-F+&?_'7S]RC-N,GK]\^-WY M15'<%^\2MYET7*6QFB(U"M.U((TBUU'6EF>!B''CV,\ /0'\9^>$4\!_ M3>L"P[18I[D("?

T.!/G='&I2P[28Z,, ON1_O2[NV1>YCU(ZTM3XW4/T;?H" M9LC# MQAS=X!K@X9O3)6.=*5RHK2NI8,IR+MZ,> RG&^BE%-*SI7B6KR?I&P M#>>5@L /C#24^!Y$WR+?
0VTB\T8SL"CT#1USD/@A,1D0>2GG?)@!-ZRLHNS_M33>7+)$'1XP--C4&#H#ZM@=]Y(1C)X ^K$DPS-XAJV"$9SZ$1K2SO2YN"O:4 MYO&DV$B&FPK,$5C?HB/0@RW9$A!6>&1,'A*?4-
\U/@\UCVEHQY?AP\XW:<]&!S%X]G:TZ.W=#)X]NF&_/R M!+;K%,1FV,=CU[JSHF=A^U]:4 M>,>*-VS[4"VWF7*BK-['V%0Z)23>*HPH48,J.>)HGK9JD,RL^HB>Z#$S/GO;
MCO>0WKLM=B+_8,=O'!OV(K=*B)0+O@H2AWR0WOIM! M6<^@A&S6DJQH)KK@Q)!"<$;.7RU> _>[^Q>]=O@JRW4?$G\CGSet'!Y4-59.^K M+Z^7]T4"3G!)U)':8,3]10[4]2;^P 6N2*-
,/%:4$'IS7T0)O-WTC?_/RE%& M#DQ_!8XS/38ZDJ,:YU6>W*?5B?*&/M&,;>K>B#<%B^&9NVXD<>Q) MUO\2$V>IAL%+:6 U4K0#+5W-$/-NU[;&K+XR9Z8+JAR-I,S+EH7-XU="MF4
MTYQL:B(#1))J[BMFP&W7Y]U 8K?T]R:GG8]4[A.$Z+,.1ZV#H\Y[+KI\\8\/ M.GSV^7@N ?ZX0P$PR"YPI3V?:/' PA\.CF>)..*U*)K;?*V=B6TJQ3S/1MPF M9.9KX/2DW/?
KO7A\O'B*TNQB?:R#%$>C3]%!J/[.U$'TN!/6TDQLG:>]1MR< MGD)X\H@@"]S1Y&(]W8 ;V2D\+DI,DZMNZY.Q)9KEP@$MRO+K>]XU\]NJK+ARX@P _MQ/JU/L)7+AL![JN,F2"A=5'75)
>&:&]FJFPG>%XZ501BY@ ?H"^X7M4JG^' M!]'5;A^8/VW;QXI3LF9TV]&MI"6"3, _#F0H=E :FQBI_R9S0A>BV;D+TD5;C M*9QC8[&)FT,P78M[@X^\:CLV!4[2'.4KTV*6ORB2D_?S4=F9&HZ-%)&
]5;F M9(\XK Q-\G>T.XN))&F]'C3Y[.^B.,V$R7C]1(L5C1(^[+I:#3=R,01E[WUA M$]5KL=MC7A#6X!;7< ;8+;GA'Q')VX"$^2NB4:1]1L _/7]@CONP-=< M)Y?[^89:,;2S/:79;-
_J!\HV#S4+Q4*SOXD%LKC=PA[1KB03!-K8>T.S.S'C3 M;H8GJ[1:Y ,\IB2<2CM585U<;E*X,*<):4NLTJ3[4]" 420#']?9J?3L4E&A$RXJD)P6>EF7@Y_92[T \\@+ZCGRIE5 M$N8PV\U:HH$N
MD>'%EM#U#=X,15((V6[@K[2]LOI%1?R^(Y!;?0^H+MN>F8%X3A(4DII$4M-(M:B*;5)\%V1,*;.F1VGO2#_,28$7,F9/E"JT2M=CRPI$$ZA=#:*(?,XJA+Q(M\R:]
['N+ZL099RSKDYI.-86BSBJ_RD5W"TQK%]3J,:IUO^=[-;M9L9Q*6V?* MAB#NWL>@G#?R 'Q$(S5$E/*;;"DGD<*N*7UR*4HWS[E19Q6M(S PB#'M@T(8,^&W]XS

]TYNWILC1Z>/UX>/#O!/+]=#^[(\OU_,#4!7HH0(8L M:,SH?XW^UY#Y?'W^EX8&&GVNT><;?:[1YQI]+K7/I6$-N7:G?II07KGQP(M? MF/(_5+^T-8@! <.]XW$0;+KW3+Q%)CMGFU:WU]Z2T7-5_:XU-]Y?T MB=(#Z>>]1;0@;5R@>C+3/#GYRWV>%ITDRLHKQY#'&//(8,I^O+^0!MA;&@,<8 M\]@#'F/ 8PQXZ!PRFS= 0Y&G=BAV<7%>8^]_;5,^ &(!DT$'O]]9)*B(THQ.
M"C:9,LHT0Z%6WNU)@Q,I]V.0U6J0]47CW4_EZ@&1V>*\I 5>,2>B*9JJ'M7N M2AU=)N_*]3I+=9GN0:\CW"CR1:+]F7S83<*FGM<[O3Z,<\"$1 2>OT@.BDET3=B%IQ M2?H)
<4\7;38S,\V33\ST;C&-9R.':=&E0>B[87K0[,6$,.B\IYY_X149$F:5;R;MN5^5=U:[G\&F=E@I(K M@E<\Y%C6<:[9XK0!73%IR&:N(EG^XG+V:,Y 0V[E,./W#@!!;NLTFA:ZPUQ7 M9#V/+YVA/%ZN(O*
[="[083W/9;-G2R*>T&%]SV7.WJ\WC=,1_L&7U+@"CG(Z$U[P<(C9GFWN_1SB2X0 MC4E:7[A7AU:8WN\GYXA' 4W%<0S%]Z^P^5JG>$-0D<,BOC@% MTX$.
[VEV34EZ@.#=5Y)?],B^7.*:E#1TR4N-IA_\XGP'?.5%R41)^ M@R4B*4XJ&:>"5+Q#F%PVR=8/[4O3;Y>I7D0.."JP8DO-E+?>*RO'0D+KDXD '.\I4N(!5B M'#8M[]BP9XU[@A#DX@RX-
1J.I6Z@0P(\U>A7!\PC'<04V.X<#X;Z:W MO'8(#!_UKG>-2)P9,*ONF&=\^'(A&-KMVC&#XK MNOT%8VU9N#C@ Z>8NU'>3.*++^A_H<\ET1E8YY?OJSS1_M0K2HG?1NMYYV?$L-
C8/[38WP.=YD:O4F4OZ7/"RWOR&F$-BT"_[?F\?]Z;F M14KCAMZZ71YE]!*\(5XAV+DMUCDF:\P\(_0<87F;>L@8I[/80POJ(ZZ@'EOW M!=^ZKTKB6_"\N1^VOR3M%&DC5>,C>3&1G)A-Y*#*F'L
M8J&% J8Z6PJTYX627ZLA6QJV3"CHN,@N"B"\)A=]!]X,N* N0Z:?#\AVY.- M*C(0XXP)&JY/@B;1(T&H#A/0\B%+8Y13=/S7TV!"FD_6)'UB;\@VDR7#@#UP MM8YRGC?2+>S2.Y_.
C<#F>D8^K$_:IF^S_!#E%UAG%SG[/,E*>(9?_S3;.1W MP<-'F6 Q6R^C/S:KYON.921&0F/:';$6\6TZ2'/DJXG2:&"+FTO93;3A2^I^
MS4LK$$ [.D>$+:#\AN"DC(OTB4G)/E&SB=.6CS$ZC>N<[4%1=K^^(C@OMHPT M.=I(:)@5+C5TNE-#C?]4HQ;SKC MC(18<_9SF2?<++M?+XZ^3WU.BAHE#S
L^$BP@-79EYS9D\MT+;SK341F%#&V M^K,T8K*]$W*QR"E(#3"S2W:9YLD%4Z<97VLT6<9XH;1 M+@+2Q!U-F-%/>5?&,:+T"LGTAI"H>Q"8DN(H ,S^ZV#U\
(X3Y]SM0(0Y/<6& M=V!N.'U49-9YO/Q(BMHN93#Q"M=6YOT7H:8MAO#Z_@)90/ M.]H:&3'0 SP8.!HK3Y"[*<(7C+ (TPP M'@/M?@C&0S>1P7=!@>TQZCBWIVH$XNUH'BGZ+AI@2!1'AF
K,.TA.5P.06T(HP+]3#3?EP;P/AYCIULAB(NI,(1!Z1KH12PNRQ[\OV9C M+'LX<6P]:+V],DP06F1<6:/BATF1 9RH>U9=<.,K42KSW#9W 0]=$XTO\. M;AH5%;V^&&B LCX!D,23J,2QO\F\:&1=?
4G.EG7 _?@Z%B6V>+*S M,L+6O(V%?U8+ _\Y(E&1H<[F*LD5$'L05 E)"8&>&KW!>]:\?<]KZ(4;*VNIK4Z2U=<](S%;5L?WEB3V WQA!F,$C*:F3 M4AI@Y2,9+]ERIFK)DE.^KF*T^@:9JET
2OC/E=1*JH@];8FB^9/8[WJXF/T-5V5 MJT;FA; ;KVR)\D=18<>+WJQP(T2HX5?K',W3@D>[K_,D?4J3\OG]]$>\2>G< M<\F=\UN4U?><,)KCB6V8H6,DGQ^K;$]
MSFIK6Z'DT$,JOD*HOEKH+6AZJH?T5(_SG$EAT1R4O$?>&Z[DT"<'66P_F MNI:*"7OD5W+A'6@:&A?F]3* PQV:H,F(K]SLA7O9-9>@^>C M(^_\%DT0UYRP-[3K&{M)+(U2@OZGF
J5E("^@'Q_PF)%W,C=4^\[O:?Y5=^ M<3OZA'.\NY%/P+1D!,ISD%P0HYB+QM4RSBJXLTH3)=E)W[,F"+%9%3WV<-B%((;X/(O2:YA3V"X59D*'CII8:Q:GC2 M=YC49OO8P &"[RC!.1U5X53?
BT1@"EGSF#T44-3BT=:'# 4A@*61/&IO]QXT5EH)S ;V MK#Q@P8'ZGO>U^P-BHDG;!H(334*%%&B<8I9^]1PE2,@V&XQ?O MX6B1QPRWK2IGZ!HPK&FC68IP@$,Q\(VF^]Z0-!-+YP?^?
7OJ[0X7!8? MXYRK#93'DBOA@?UP6C[=64^<3OR-??&L]L7AW:.B!\PWL2)GS=MN[M]NSG[(4$S1:,C8RMIP]%(FYYT6:\TZJ \VB=%OPSHV37.I";#!)"&L"
((!9K*,A\]M@ZL6'2/7P8V?)1'81XBABGW]'ELM&:L6UA#^[0,AHM M.1M#^8&79;_:*0+//%14I0$!XBZ=\IIS3349>661&=7TM]:.\N5NB
MBLPH$ _O&,+$"S(S3%3F"R92#AII#+S^DJDBO$&2;]!.8?#5DF4@(#'Q\]\H M+]N=+4 @RO(^RB2+ &KW?Z#-#3,3<)ZC#,"??(@!YMCVS 9X.'(0>F-LG2^C ME*RB?
+:8+Y$NCQJ#7U>8]VYO49P?&133+PPA7G(3+O'3C ,EP>7C\HK)H*0[M=:,E; >Z[MV]OF.\G[5C=3&2]%^[Y,D6+ 5]>+19IC)]W!R"U=8YW"T3(M9#.!=:[(/:,W\--VL><26Y6-0%5\).T
**L1/Y*3]C))7 MVXF\WFW9&RG6F(TT;L\M#^7+VY!OG4_#X[CD"27,9+LJBY((@GGC#4[I$9YFZ
MS^FI_]S.X:DXG55EW]+&DTIZ]lQS4^GTJMP3AIM(>N%1>O3=3.2XER%O3V[E[1AA0PONT).%]E9R\L_4,T^6QS(-E&EBNM4_WC%GTN4YH6 MZ(XM4F:5U1EUHO[H5M[55Q_*3G/YC2
SHKEHC, ME\SKKW0H?<\>4=#KO)Z?:00U7^\;NI_P=AXOYUD6M(AR?LWJIU*BR%R\VCM4 M*ZYGB]IPF3Y%:<:./,IGE4DF+<23EK_-O>W"NORZ3DEMAMM:W.HWC8A!W^2I ME+%%LD
I=R=L8];P)D\Q>[[ER6[*L/ F3S&SOIV*WC-4O*C49JTB&7D"\@!M MOLH3S,1J*9\H?5PR+W/ZA$CTB'Z_\FP?BJH& L;QI_;&B+5]-KS3!HT[.011] MPSD8%L9')
[6B_)T.3QC8#$7)01V>X'Z&+T _;7^S^#R_"%'LUH+9A33R_3QEO MP_l5E)*J/GI*:;G;]T[$ ["\B84T\F;EA;W=FC/69=GA$\>_5WM$0U%^LQ1M M'4(D7*P=`MF3=&U#S9)#I0:*/CB4.A2--
&.5WUCE%W:5W^N\\TTF<'(4!&4J^ MSUZ>/H)=!EE"@;)IA\.@S244!!H31S L9<-W#.8:K,R6>HJ3D$*I^!6M%DAB M>R@8J.5 DM\8"@C*/1B80?AZZL"%SF0H(J&P)5H';$,1D<[X",*]8'P&>@^&
M>@F-5^<\QP)P1I6SD?]N1+76D*PM A@&;\],>K4WO(J@'W_Z'9ES>E +,PT+NR M6NRCP%8D8&2T;] 8$#+02GXP&-H7900P(#' C*3 :VO=D# T-93\I^/XQT"!X
M&RRZOBOT;\$8&A:R'E=P&+SWS>!-FN"@^.QO=.D*Y;M'#SY T"@ZATN-]RZ: MH7#/0,U4M8]FKK'P0.U1^(`2V%CX!22=V['8\ ,'BYGU(CY[.U9XF';H,V O M5AL@S'I-".O%@(<-
K8WB&WL1Q?"PU*[+L6?_#1O"O1AJ M>*CJ=!BS%XT-%%=Y*S*+$=WP\(1WXK$8'/875LM]%;R/1 \;[L BW+VK#&>Q M7W\51O?N7G!8 _/3>NB["<LD%T@NMO/UFS M38#-;
[+"" 54F+MIXRN+&OV%>M9TQY7'+5MS)K'MXL[^(WJ;T]NR" MT#6S8=C.6?!9:9>Z"U@!KP\,VUIA]8;M\]>/K>2ZO7!L),.>^D9Q??3<<6HAC MQ["Q8UB8';56\#/0^1SUOCT2
K^O5VF#P_TT_N0/AS4.54G]R&X!=-U@&-MGEE#/=/9H50+KL93)ZNG3GK=O8^/CS3[@G=G5;G\]6C]RS,"-Z(Z8V/GKKT M'Y5T26]+$=*YO6>[4B?\H^"<"Z*L<[^4M!]PXPE+5'(W FC,&-0-
Y;807C#/Y M/%.GKITZOSG3%92IDMFB_OH9B1%BD2?X,N#^WM/AH)TY_0E^JG5C/> M#@[BS$X]\>K.E3,%D=YA&TF#7GN$/$X;FE,=UND]%XX$"]48!0.67"XC&<-0SQK&G8!A+8[8&_5#
ZHP02Z["W3P6%NQSNW=T3D M)X!M_%XPA@%5.79VG<&@A5/#"';+P=B$4W.H)OQ=`[O^,(D/"K3Z$YVLHPTW MH7]"`HF7E8)=7.#N4[<[D>$9K]8SVC$1)AC:7JRA;1.2A\21.36B.D;L8
M%P68&PFU_98$]A /OC%[L\"]$!QN#S$P@0M$8[9X>,=N4M)*S*24T CUVR/ M>6(/8!.7<"*G-"2C_(4D\]F10G_N?H28H8@L;8FB_1%;^\)Z4Q5D"D(#7" M3$]8ST6*C8R+9AJ;U)JE*25[R))L
.V^_LMKL52@[3VJ/HW;=1!6& M>@^9Y#\/8*HO[P&73/DIT;,A#W@*IP*B2MF;!"2H^,H/.(D V_YFZ%R[RH;DHX M.80 3:S5WMX"]*42.>:\#:4N!CK'M*#G)>%O MK;H)KG _\F%;8L?
[#B)1X1U+8Q0,&FA MKC%\DPT%);VH#=8-'?@.$_BVW4[1/=]1@B?6J4(WH619RA4R,+PCE)1+ !Z0 M(]0Q$/>W0APTN$[$!H7=ZL/Z$-9)##UJ7G&XKNDM#943*0I^"Y9VLM,F7D2
M2OL4P(8$R!ZQE^4Z.#3@"2.AB(A:,'>-"(;BD\VYV"$]WVXH.;*10M$^+DK2 MM#/FAP)!_R5I0^QK!CZK#D75MH%%? (>BFIM)2S@3(W@#!D-E$39.<'M.1]8
M=$C(L\I/_5+:#EK/ML=G2#A"!#BF3%BJ^?.!,X,&C)+VI=Y#7)#B+!V'I7 Q M.]YQEB9Z *[E@UV4O75B;2QVLUKL MMK-HKG/V!=$GG&^_2/YXR@:.V@!+TMSPV(I<30/D
CVA#*\K@U18=@.AMU[C M<4-P4L,%C&POIA<4HLC{7%/(&5#;UU-AQ8F2UG%C5,H,I?<8)\<,W>'#AG"2 M^Z4>X)O_S@CO@U389^Y4[+)\X/@=OK C*XH%F6 JLC=.J6-2,[4$65^V:[W
M>QH+&)?2.N7Z"A.4/N:UL18?1_K>LR7W@=ENMRC*TC^$K1?A#^@KC7K'QRR_MB^HSI2>VD52&@&!.@!%N9X!RMMEE3-*GR2K-4R[E1?]$MG(OF@5LE-.9U-OW MWFI6K&\%M6/.:P
DBY[$7@&,Z*VB@.U%C!5IXGLCC5,N/Z&MF?=!7+/QC*:G MW>KXB],R1=]>ZZO7!L),>^D9Q??3<+20-D3TE6;M]J+BY3RH$1)GBD$ MA2+4'C 6 (TU0-[4 #6[T7)=*AKC>]9/*" 1%<&K2
17.K?63^!BQRDL3D8UU9@%<6W'2XO-3R;7D;'%\1B)$S MA'6'AU.#!_5OQH*X\ OBE/%9K!4;!1T\XEZ(:.DK\I0A_U]SS6*+![TQK? M$XT@D #"/;Y+QI@2[4:3 F)#QJ^H.7=\.*G1OF0OCJG1H!0I>9
@%"R$LWR) M1/OH3RB;$DQP8#D H0B0>H>RU^M/'VLF2X>R M\[=*2CO9S\+BZW.?ZP2;3FZ;/9>^!X7>"35P EA0QD$WR&1Y?O9.!8_T%R"7 MW$)-
HG\WA4LU&$:!7AS1Y621X2^F" 1D#^ZY0$ _VEB@9[E +^07;(+5/ O M=3Z:8[:RD]WF?\H-: #I99 =6=S9:K56F*XP*=(_:K7&WHN*H?:,#&KM%PU
M\]OF"098_XV]EFFLV>+DGMHF]E6T3C.^ILF_RZU!/,>WB*W@.,W0LWUZCL_9 MXKTA^"EER_LX7//H M*\VDR[17SE3$;%^2+<#$)0N3'T;4':#\HW\HUQ=DO]SHMA,_ !HOH_P1\4X]
MEXL%$E>O.F6B\]7Y]U49B1]9)HLXW^MF]# +JZ3C' ,XUM!.5L$$3]U\R"PH<.;JH?TN@AS2JG07>"1T,'(Y= 240[/C?@ M"8*>TO .=UW(MAE4X+D)QO4\F[T/>QZMTR+*U+T2-
!\PE/E]x/^M+,?_T0M{[29"=9C]546R>O2?4)\ZZ%> M77PB6RS@\7T9%TRX8X02RLLA=@WS9PO)C=GJ ;WQSX,QS&3;@3M;Z'ZL+L_J M==:'(2CVV[1+++1]=8.;78[&+D?
>==#G:)6>AA'?;9^Y;%3<7S*69N*>8DK>] M$VQ.\ A&*W!;?684+ZP8L0A%5VZAV+DT)9=_U);[P:HO MNIVX E@G)=5"]?-K@+A+*G,H^@)F0[3-E;-@&?0IF"U@D(*HE>5KP10(#$M5 M2GA@_4A.
(]@J9=)>KY(G1!ZP:^O?:*; G%N+[4O<>U"V5K:@?L5B^[,@L%.4 M6=AK=>(?.WZ,("!&_B-[*9%3J/P!0SASZ\+0FE]#1BT7SQH==4 N?:9R_;. MEB&Z:UTSV0-SXSK
<0!J^STS=4<+4,B.W+ MG.SY"RM\ /K2$X"):NK!;#W@XRG 6K"5W!2F [80A+MBA ;ZQ&'lP M+\K &UAZ[6 E+VZQKEAC&) B. @[-L.S%^FH0; _;'?M0
X3\QV.0;\=)AJC6 M6Q6&A&\)Z4X>:[6)#<5=:X'2;JAF<\%0 /$,B$F[MQSPL=XC/<<%FKR=L,E' M^39=:Q+ER826JU5$ KQO.$T?\W21QA$CC?JS-GXKQ1IG;W?
Z(0T'7JV.4LS]N9';OF4=,Z8E!2QFWIL+U@\R_B]\Q"%K=T!0YS. M@:.Y/Z*DTH8),E+'+1,.XG L#(KV%)!!8X.! (KS[_'N%3+B<,IO>][DQJK M^5]/-;^QW1RWT]^AX*BNQ35K-X42([$A?
VKK)Y1XBO0(+ML*:(W-@T8FP;H M5G>#W4)/@XJK:=9_KQ%' 1.^A1NETQACC59CC263M[?:.TM9FB.^4'(#3-TR M.65Z@<1_#7K#]$R5"M=H(YCDU(9E1/W MU"?\A)FJ,%&+_>,18^O0/B-[?
!ELO>J&,3SV>L)C+AQ$;WWD_AW$'BI>Y5YB M!U.M.'D1 P2VM>T%608G.2TLI*"JB%JA(S!_O8N\\++W"=HNB+XB+U(F_(F\ M *8Q1EZL1EZV?1S;QSJT'M#N.D7G(0^]6+H)>0!6AKO
P4F7%&78H)F^O\' MYX<)XH()(OL:47:%@),0#.KI5!+IM#O!]%MFW#P%P&/;UD2,Z(2(4 M0.13/<*D18I"*!H$(C)606DHR@6,#O (-I34>S N:>[Z.]VY:Z#0:$>RP0C] MZ$%O.[@$R1(.0]"".ENWZO XK-
U;.MOC)H'POD\101$8+'O51I;T=NS?E_L.F M.>,Z% ,&IEB@V36AJ!:.?)4WYH2I5,21@92$A++*8],#13UH.Q3O0PTDG-2L4 M)T$/(++/)*SE <+3U. M0,7]%K3O+S4T.7]LK@.,.$*
++YP=*\,,+K)TT&Y5GI0]7-OP>#\%!PXNH6A M!ZC<]HK:_YE6%R8>\3E!:.=^T6U>/(SGE&M>6S1-\[@.QMIF0YHC../?\N M:6WVS[& O;M]V^_C]F]W_"M0!O\=(D][C&ZJ9EZW*,./>?446<;Z]?
VU>=# M*@5".KW)\N?2@HX06/&&D=8C6.+ C:_ML6.5HZAF\)K2DOF06)6%KK[8OZB59'T+P&V!GZ8 MG;_9ICM;7&&R0&E1DG90Z#QW.&@<]<&GEU\1B5-
Z<$ETIB]!T!#F6YG6AA>! MWC,'@X+Y)-#]V.%@86 !J)_C3:U[3[9E\X[[L2Z?A;MKEUCJ]BGI@RYTUPT#.MAUOIKIAC$PIJ7R0X4*13;CZJ?!4EN%!<@-HFG+-<37PT(MFAI-1H8P0)[(5S
MH[JL)#B"D')SR&6#O>WT%"WL_*5P?W8+2KU2A6WLR,G1DE)Y'<'N3% ^)WXK! M[6EJ63,7M MNSVL#7LMPC[WS[W]L"XPO3J >'FW1T+,IARTF MRD.+A[FZ.2[0Y.V$33;*TS^J%TS8OYK0?
9)HG%X2U9R M'7[D9WOP>GO[MXMD,\'AS2#Z^,1,I,,%!1^9'L=9Z#FO"%[Y]5](=W PWD>KD.//TH?M3 M;9-`(ZQZO+1"5[7%DYC9.7K*E) H?ZRF=+8YD-
O$& ZG*F7@^7%FU;^_E&326WN/KVC]$_%> MY"B9LKTO>D2[8^$;PFPO^QA"WNX9LNN45&/H=5Z?B5I#\<6;@#9EI3M-8UJC%^OM\1<_J#OOB M/7UVK/ 2KYXZ9IB;1P\V"?
#M_LOB@+$=J-Q2F#E[L"AL0&R%"=]P?F'P]H-T M*S;\PKK!3NX#ZY9L^(7U<_,Z#YCU.7"\(O2I9?[SX,ZWO#+<#G\K]3J"WW% M[T0V:A&/X.))?7=L5T;9')&5 V!U.?$*
<;%))KG.TN=^!DS%L*O2>Y? MP."<7^D2=D]LQNRK.?MJS+X:1,5'1%LHV([2OM[F%/U$(E]'MM=@S-I7U@3# MS4G8*VN.8?M83[G7UR^@=M"F;&A'T>_%W?9:*DC(JYN0>8Z;.
[>*+G9LI'&\;VRS[!%WW/8 M;N_N%9?+ L8,*U=49//24C1^O3S*Dj) ME7(G*\P%\EV>'RHX1![Y]4%B.SRQ;\E?(%_G$^_\3 F$[52_Z;[?M\HM[_ =_M:/56] D-3[' 60M7ZKW^*]&ME=^[>?=FY3Q_O7<-
'33G-SS)\/F?'U^'+>MZ MFB]@ %QW;?6E@Q5TX0'](8Z0)S=9E'^*5J@Q7.7B56-]TMA7V4ZQ#C#*-U;K MO)YJG>8([I&L%*BF"P5*==6/)%P=2NF34IXT@M^A8.*B(LZ7ZIFQ(LY93DK7
M2.18*3>@ %EPB]"G+R[>!IKYP9POF2AUBI@:/JN(VN>HKE.CWTWBB"[K?R VK:>,"6>V99:TP3'.S7_MF8K#%AXG>&X0V9@=2#]C,0S>X*$ IZ<87 MH:.S2"Y%@M'XY^<\\1D^E3*B_
(D$V:A]2,$!CVUUO;6E>^_5ZD5)N>C"3 M5&MNDO'.9R?, M?$R+#^+K7MH_:#CS73'UG/Y17VLY712(F$_\|%,.=FOE2FEJ&#;4<272S++ M; EL>)L=9DZG]#[']#O21I[I6<%T6[&>
<\ULN*Z/M;%,.(\B2J79-;9?UP]V MQ_O(-IJ4'UQO__7OZ7.[R'Q9 !. M>P;OAC"#[0) ;H;O!06F*G2>X726S]7\0?U/X[A?]_V\X MXRTOWHNGW/V!'LQ?LHNV?V!?B;DBCE69T>!Q3F=SY#-
OK6H!^R\)>W@@N(< M;3Y&Y'=47)7,G8:Y1,!1O6%I M,C R-# V,S!?,3!Q+FAT;>R]>W>;2-8W^O?I3U'",_TLA9RN.GJ[/TNQ9>T MNQ/;CZW,O'/^Z86@9#&-0 W(L>,3GUT%2$@"!!*
(0]J>G402EZK.^[WP:V6 M^\O9V/.F%Q\^_/COX_R'@F?D9O2!1F(7E _^&Y7JJ MI>'%_:X>-S*X5_KP?[!]?=;&>**& QMO7@.:7GD@[(IAF8:%_^_GIZ\?/$>U MW)'M3%0/J OODEH-L=M0I$6C<.N?
R00E5R-.OH\FK3U9:(AR0Y+#E\S? MXB411ZH[I&\)KY"'E/!VU_&2[E]<6GE@YCGX)9'HO0]P?3F>]/LD)3*F2,\=
MVTSH.;U"GNPT1*E"7M>,.O%X(5=6X++!B%6TD,M#U5V@Q7#MIBQUTO#EW[$" MN-9Y:.'=V>X)6GGZZ_W!K0_1?W7+,G$49E8]-; MK+QOZ8N.C7BRPX45]F-K-
I'CB"*+'_";ARW7&)]X06[##@6UVY#/Q44[6YR1UUK^XV@5-3^B!]J_<"-+RHJK36#DB%U8IX'BQHK]RD^XY M;UIB!5%P^0.Y'*@CJ2%+9Y<_H4]CK.]7Z">$/GF&9^)+PLR0:7](XE_G8$X^
M??"OT=O^WT8#?<]6+6T7'.!C[DKP'RZ %V/-5$#=3!.f#O >U+IKPOX(> MOZ%&PW_%'!LJ(UL\+!FQNLO9U>V!2CS&@#HX!G2_&^_G'D O@_4G'VX_/0A M(_FGH:W/D6:J+@SSU4
]X9GJ*;O7ZR?(=>;FR!Z@"37=BZ0.O/LCVBJZL22 M7B#1L)!X+AG61S2*5AHC=6*8\POT/W_:_CP)A@%]WC'^C)GJB6_Z. Z,\" MZX)P)E:/Z(W[PG8JWU/PC9"(=$*?C8;A !LE2B4TI+VXLX,?\"FCD
MJ.8=$/_M=SP_0P9@+Z)_&O&W78]@-61)Z8]I3Q]6NE%,MY[PB^2^C=PY6D M7]W==7G][_[UW16ZNQ_/MM=&11! 3^F//!;FBJLZ[-5Q_?^-5>?&T]!!%;. MEL\N&^ W@"TMN/5K6YM-
%LT_PBML_19^:5\XN_U7Y.&D MEF\=52-&B#ZB25):EB7X_VRE*\9^*S-0$?3G[_786\'37MQ94\FAD?ZY/8M MG:@B4!5@A0P,O2*=A'N)*_\LP /;%7
%CIV:.U)Cl5Y\Y]H@!^*=JSO#RJ64'HZ(%?D-#M[V&CC5C MHL+D)/@ ^OON_A8TTCG122&[PR%L&5,W*X5K*9>)CYE& V]Q>W/O+'M!'9Q MIU&T!!@%^9-
O(*2[&9A3@X%DTRJ9!W+GNK.=!M$ 79RW[TJQ?7^8>61^01RI M PT@FQ)ED_C-8OM^>.+'Z==<-H-8,MLJ3;GFU*U*G&[-92_8&D\S3L5FE.[(M2(K2KY*O7?-
KV&:K[LR9TY$$@Z+CV5FV94%N*4)+E'.,8@=5O9QM M#@>FXD/L/(P>IC00,+TXQ(R%)^L35S/7L"78V[O&? M32 <":=>;#P2DC%Y*[DRV>EVITX%^A+^BDG1K]N/O)U95;A]\]W>MD,A?;B=[7
MZ#H9T%W#QJLZ-/&!=4611&SG(F)'%.,1*RV02WV($R-B/L>E{(5W1F)F.:93 M>>+'?.'VBZ-.QS!2DSYUO?=O'=PBO4)O^UY 1ER03D6*9S3M%>#PSO>)3(M"@I]X F[6'6T\8/SHEK&?_TLBPPD?
YY-IZ;1WT1=/3WL0^^PV0/9H\YZ^&X3 MUYS>1=*[O?,"9M\T[1\D#>G6=]FMV= ,S?#$R)=?()*$C=P5)RC"''E5?V%SW7TBH1OFS#-->\3/69H[A&=B]>2/TW 4S.G_]#_MZ&V527*0.<\Q_"]8 /L.1':?
GK_7@.B2U!%?8],_8 M>36T<+ZJ;3#.6XPWiY^5&=^/N+2+$5X9Q=2SVXJ8[68'UFVI!EZU'T! 35<.,@ M7*#*?/@D-EJB3'UI24H80O*K[OS4>>G<6&#^:>.VC EN&[5 BG5RZJWW3XA
M(S];'9"]:'Z#[N=Y]$I@4Y<_9"'@:E=N@0MKJKJ=G4KMLTOY/)E.:?GIE"R[_M4RA]5 /L3,Y6N_JK8R%[%F\T&?.'*M.)#"S1X)]W &8\I3-X-5[.'#B T-M2]])U@Z9\),=".+J(#J=5=;H<$MC GT;DQ(-
J8.OL\AL)F:"N@-+2 M^*L8WS25(I[$?+G38C&\[FI#ZR0-+U9..RD9WKD&F9JEL<93H@G!WV'$?DY MBT$81WW!NT1RY+1E\SV9>N5Y#H
M]*3ZBTYN>B3+3T\^A/ST4K9WE$]4(O6B.^Q"SW28@Q?A+?5V="2*$HD=1!<" M\'X! "ZO9\]L WC"$%P%. R84W;=U&H>ESL>.1 MFAI7JN/,2<" 4N]A!{^S5\SLFO?GDQM"^\1,Q;:.U&T-
@#T%ZUO#G@+.5*PF%9&I7&/Z* M(44X]WE4YZ2 -#A]2[^W+:\LVW[.?3[XQ&ZY;/IE!?^X4]>&Y!?["E?A"-CI MRAY& RP-K;(TEZ8NTDK8 &10#!,U=* _>OH&06Z^/ZWEX9JF.K1)'NXK[CN
MN1>Z*@_4H9K==OJZ;!!NJV8D+Y16[)F .=-H/3*:G;"SV'7;J71+="-BLOW[M/U1'7Z0P)V9E_$&2D!;+I:!V95&2HHE)]Y"AJ1.D'*,>362*4.OS?'E+0#G:
MDYNW}>&G./N5IU8=8BXO9.5LN>%Q'[>J&'K\\4>0%V*GJ *CR3 ;O* -D16< M.7ZP\$'IV!73Z%A;.@Y^V(0]I< MX4!*PF3+Z3<)MC/[S^NCI7T^D$*.K>#A(`?$)$L383ZG4*!50.);(":B>*:>)L
M$RRK.!N.'7OV.KZ%5Y9!]* _\.;3NIM Z_]2R<%I?&P[6/.%Y,%T4L0RE)D<_ M9J7+$QD+O>>;81F3V20=F\%[$C)(2B287"B08@@6/V#PS-R9Z:G+3,.#C;A9 M-$2:#4F*2MRB?AY&(U"AAQ>--
/6\$Z>SC?NS#+1U[&(4:X? (3-47BU<)[7GD MC*E+>2?:Q&9\)FNV.Y:N+/;YK.1LW4 N+XD39.L'IK7XQJ>N9LQBG7T1GC164 M'/?8@ZF>[8RPX4;K@K#K*:VCXICJ_OJ<;8$V_& +!?'0<>
MH5!:X6>SVSR{?(1!&3i0%,%D%EV-#'3Q"""]V# N6SF[@?T>MEU>=%IULTOLG M"I\^>.>>9B:6Q&%+-@B[V=7L*@/$+0*]T[$5U+\G?%9&4]A> MQ%Y M;W8[9Y> _S2R,FKLO.&SIX&^]]N?
OZASG1&GWI%(/-%XUG8H!80^(!0\B\N1! M.Y4)?#WOX.#;1L9DX/6D 'CMTH#W1&S&*9A)O;R@:\GGUW^$U0@6NI)>X3" M6"#5F9]GKF%AUT61T%UU8]C&;D\YNZ0/H^*#I@W>1_X(* M>I@-
LV#@S0:95-@V&M@*LGI.(WSTUMB6D[4%A,0[XHO^QS9WOGRTG]5#;_ MV7U9]*<+2CO?)LN6F+9LED%9":$K?3%YAP82\+]P)E8WB;L6V*L;O9/-]G] M/).43MW;5J9^M:KM5Y*>:
(FQWO_6CHULV[-L#Y.#F"Y,$'IHU6J$YYF,]*&* M%5UJ-=KJ4&R AI<,?,FC/WJRU![PW9GA,'6#\88!5LYR?(U^*XR(-? 5#D M"#87&18B)8RPAUY)P7'BTA@>^?D5IL#$?
T%3V _%&MFG8R+/1$",8A,-/JC,G MSUHD?0>?HJ+GD14NRBBKUVH2W2--2HA2)'HKXI VP][I1LZ@F$N>H?(CQM] M<(.F;7C4:7ACU6J$O3!,Z >\"V8%.FW0L1$;EIR?1#]5% M.
(&P'1WKYXB2/B1U)L*K(FYW1*PUM)'8:C0[G6YCV -J-]4F'HF2V!(UX,L3 MGH*3Z/=\3+H>D0.FZ^:783)TA#6+]!//Z/ !_T /(U3WP/=]%0CEX0<%G?^ M,#SB7.(39/77Q6C]$*
<4:/1WZ;S:05,@FDMT#GHAIQX!%8!6_OW^S%U [X;O MD=S*^^Y.._^'=:.)S%&XC@<Z.A.O)E$:B#%K7WX NU\C38.F\E-](@M8K[P:CW _M8)KG4C/+NPE^WN'W2,1+]U8KF0!!@/X\l;DIHY!S-
5&NS5L.YIR3VL,I6&K M,5(D#,>'HZ'6'9U=W@+&"\\4@T,T00YP)<%^(Z3QTT1=&CM++A,)YL!234M M.BB05Z75H<_\7>H(;5$B YK.8*ZCPNC!^(&W8S5&.X"ULGP-O=*;-"
M&C#GYRCLJVN\K?9TCXZV):'9D?V.*K+059H%=`314Q+1#*FY19QOT7&AFEX+V M3^C>-%Q1%!#4.0*&.OM(:E\&K?'8QAG!:D,=G.#KSIZ#V9.!,/!2[C69+ MHNT!;+25BKIHY&FC?2SRP<+
(3_!5E)\\5V5BK_*!2@RM283. RPRP%O?HK M#<(VZA#^F@:>$1)HJCM&0\N:$;L.0FI!&Z_H25B>HZ@D[^IUHPX+7):)Z6F M)+0DGY)"V"TTFQ+!L(+WJI9ED_5R%.!?#LR-M6P0D8QH1/T9XJ-
!]X.K]ZJKJW\ANG2!;MY MYU@ONJB?,E=2AI*'&^V>K#>;;2K?94.'OAMCMJ2/Z >X) (Z@2L8%HNY4 \X#R2R'6YDO M(]M^A_&8U!?&?Y&AT<-R3=-W6XD: HJ ZB)/N[XKIK3D]{[Y>M9-<[R|{[X
M8-1PIY$@S!Y8OC'OB*C/I+^7XERR1$=K:_?/"5A^>K!PPS,F.*+/G#=+)*4 M"17=9@05\"6+]XXS?O08VM+&5SH[23:0-WVHK6ZH#@K&ELCJ=%36LU& MNRF-E$Y'&\I-8-
^P[#VNREM77,@1<1,U\ L0#$(L*L?@95=C4*H3 MU4IQ2J"/JY2BWZ('YCHDP1W#F%SX3HX"OW#IP==/>(3H(>T7X%J/_S>!H$= M.:F!XIQ/Y2^MT%E/A?Z>'U%T'-@;(FZ=24R^!>-M3
^W#;_1U0=C9) !!^DICCVI_NKN]]5#>=-?%BAQ8(V))Q&">.'T\+W3^BA-_@R:)ZN MU8>O"*^%W\DK8FD=AO:Z#>*P54Y@_W1U[W+9J<6+(@BMY:79O6WU2U9DF[6_0
M+G)F\H7AX4DF^BW>33+\U]|HN'93ECH7<&UC9C""]E5F1 &;"THNNL0!9SLZ*V%F|=,,L!#\B7FZ.[FCEDC.2 M 8F,.E&+DWW#5N@*\)*1)K?2]4 5YC [^EL;SY.?K[%E3PPK[K59G>J55WQ8 M[?
TV=R\!TR&VQ&S\&1ELPM=UO(NX09Q=IASW43Q6GUV=KS8/,UC8X"`@$>=P M"1Q6LG-8*9;#,;LV.8?+D>'#1%SB9'A]"P;G<#DRG)7#QV8-#FNTJ4Z+QQP"RAYMF)$[
MOK1PR*4%9M4'AT%E,&#*W^4P]% ;L.,O:EA8OU$=R[!>W*/@7OR@F&=; MC)^K<(/'BB^K1)A<[&0F Y.YH3Q!IG,#>\+,YX;YN-C-VCI_);0QN%M3]CQ^ MC5D%[KD[LG!YO&5,(^[&4?
1.XNL,DV!LQ^*6 .6I7G1KT5!.BE??<3;,. MP DRG3L1)\Q!GS4E T&]T'F(\76=#K/* #S\/ ME<@LN=CQ.MPJ8QIV,V B M=Q?
89!L#9K^4,2:5+>%&O317MKJBCOF8S)V!$V0Z=R).F/G<^:@INPUNN@\P M'R_V^# N@@\Z'S\\\[@I/0{F)*[[X6/X M?.83Q/4HVSD^2M_$$L7 EDTLT5M+*_]+2'-E6Z_8(23(//N&7_|#5V'<>8

M$A,;>.WA'0\C_[G#$U,]75G>79MO/L PWD7O092*FHG]R"8CA.N&8.+R^ MCQ' KD'/'94(0)A_OEY AE;VGBB.G_Z_%9-[#[A5VS-\#'T.B!#WV& ^]4_] MN\|YGCW!SL8},(-
D&R66/ETL21+ALD\'0II&8A#IQ"T3M.P4NN>@Y;!E-D";-M9$LY;#EHV78/8@X4X*#EH&7V$ 1V?-H_OJG_L9WPIF!!9>Q@_&R\6 \3;6\ MQ56.\^IPOK47Y"3?368&T\4M+,7-Y^9PX3HEX4KG
MZ!%;+B9FX+&R9;QRPW5H75131R6ZZ^IMDSRP H-.AX M588B5 ML1\VE![CD[TGAZG#M[URH:B!4B2Q< MMA_AY1$&D'=9^N3"Q(6)86%B/1_R9$7B .'(R2PY'#L7X1_^+7TXX Q:>V MA,:
(&+&NU;D8<3&]@1C5ROKQB2^?^#(L3(S8I"]7/+@P<6&\]?#>B;PGJHO92$);2VD>] TK*%$>4EFROYR=2*#"O,IDE7'A>I8A&]5FR>[
M,EZ]6'%+=3Q"=2A+Q4+,C6&1XI;]F(3]<);JANM"C^H\8\\AFR]CU4'2U9=-MK'^Q;=WM6SI,3O%D:MISC)^Q\V1HV!TX]N4"& U2]S=\XS'9L?6XQ I]ZRYG MBP;V8O4I&KNEFNB+H
$,,TX3>RHCAS M%)$?L5ZD"O*..KW'>P2F7&CKI=JY8OGG?&L2OQW:WB2K(\?IXE)/6=^K20_M(8K$P*F7U<_CDW*)^M\KW3!G'JG\24X/.SP#NS=OFCG3L7IKV! R'NK,H][H MPR@_/01.
[Xl.9] -@3_[^X]G@)2Z?,/LKX4.[3\W<.NXM4RG!MQX%W=_[+8UW$@_M"?$2Z"'$"07B53AFHX#[F@-5UU^R'K,/\[G,9$HK]D]l@_7 ZZDP%=1?FI M:!9T?!+!UB3B9+0=!QYSP#L-
C<E:FZ/D:N5'?_B@2^OZII[$81#UR1,:SY9MMX?DWU?D3>[6'S\%:A+=@S.O^)7[>.65R[LT!:7'1!]CV7XVF2R/%=FDXAZK(?*=0] M%O@]CVW'&V 'J*TSM1U009_M0E HUQ:%-
!$YE2YL(%$^(22>%HR8XER8[L@] MB_W84G *\G.V<,^"> Q85PH][%MRS[$23PM&K'-NJ2)#L)] -> @WG?B[81X= MVS0.3OT7!],]IVPRE]0VBNM_(;8)HRC3U9<[10DDO*ZSS+FB'_.PZH_GV=#%
M?\W@AM7^"NR3WSEIV@+&@MD4"TZ,[M&,.]5!AT"OF?1#FNWEGH+U<&4OY) MZ?EZ% F3DM@06I&/L7RIL_X[GV!W09#^C%@+&_;0MG$\=1M]+&+R9K14XO>>BA= MS'E[O/[8]
[9^.CFKW/;_F/90-6]M6[^S@#"Z 8.C*1>]-\ED[8+DL+4O>AGR0*;$IKZX3O@81,3L.5 W//*\[(.7YJE8)0%M=EFYTN'0YUOM=I'LBN3#!"1.
M/#*3X\+5GH*8^,`,'#Z,:O&:7J3I&-,&Q(U]O:Y'>KSY*\9+Q4NNEOSW)0777T>.9&K+7[(,(6+2%Z94FQ^(X"R^P=)YUO+8'WEF$[-,<3Z^166D8[F.4_81,-.MU!^)
[8NO!/'0Y0]LHB5,6]LD0C@'3R'%[A/_96F+K+2,EL-8)VI) M]BD 2 'V;3^\]=.:+KWF^]6_&9#;A2%I3=PL*G5WZAYE&R,0\-I*B0(2.5S8H M9\>EY^]\MXR_9O@:NYICT.H(0:I]>,?#R/_L&4,34]+>69X-
CO?$MFA.!29A MLW6XRT Y\PVZ_E&DF67XU:?;D5 MY%;PD%0+2\3;8&PX'&V%H"TXYFV5GLP#+'"F.B;P*%7"V5]%+*XO M><4P;3#&MP[9@^E]H["9N8PF#FWE5\(X& FA'$@".3-K(W=WCH-
?;8T$;-M<+RQBK>]YS/$N@%8H:$Z3SQC1W%;;H$SLA;ROM=M3F_=AGWED1*X2W]OCF# ML3U1W9H[%'FCE7M[%%9=]0KE@>Q;G]6_HW0QNKV*PYL [MJ>Y 4R9! MM\C;N?
G^M)&V8[AV4Y8Z%W M?#YW\HY$\IFOU*GAJ:,Q7ZQ?P3T.6(8KV_6A M _ .!8("UL46V880[RZ]@[Z0_M:P3-72OWHZVI!,&5^ ESRC+ \H4H&5DB6R
MKBZU_R"'6RYRST& RZ(DL7!0:.+372]NTVO>2 ^.! 0KF@KP?E0K;4.] 1P/N3D M0_EUP/L_5$=?U]./.BMJ[O;&=T^Y]4Q"O8F.VKYOS 6@]P__HE=S[!>_&@%
M/9)0=8D8L3Q"VF^(3)W&^,%B=&M731&9N94(FR(%M;/$Z(@"'$5\O. "S66B M1C*QX!>7B1PR$1_2N1H;>'3SAC5Z?NW#:&1HV.&6I0Y2El)FF4LDGC+K1F7 M7&[_N.1REF[NOY*Y6Q
GCMf.;33;"Y@=U#@.)J^ZPS@'5%P,UW862VTXNE"=M.M*2,57 R+W0HN<.54HOTI.6:Q7&[GD'5OF&06^5@V4\]E3?36 A+A&"'(>D9$ M<04>_=?)T8_QT_[%O-
#M6_KO>/X(]M:V+&RR*\IN5!;AE.RI,O9T2P7)>G^ M&]02_<@Y??];KY)MS7?EUA(XG74*LQ,B-]&PY>3CA9_ 66\.]]YT_# NZG%]EF-U,Z[(-MJX&>"&G/;6LK;9HM?
M]"IB.]E5520$INJ)A&ITR$X\.X[JXO33E6VY.Y,$ M%MB$Y396KO?_`G9;$A2I..6R1O.&SL;(.8/H] 0.ZIT.D^%$D=4)K\)J3^R M.WKKX?PYL [MJ>Y 4R9! MM\C;N?
[PB;5M;>,HLRE4V3EZ8CD_Z2&4>C)SM?>GS,=;VYE@YSC\W+2Q-MQ[.M)GNWQ+E3QU(D1\LK.;$UKYW$]IX2R#E:A@067_@39%I9?
FSFX5>MPT>E,'!B$G!'GV"UZF.H.7W"XTA'9@YY#*2[^_@D M^@+\'7;IT;JGT&(E][_^T];VK'&H9 ^/9=OS6&FW-.;3=69H]P<|>O):,YJNM MJ8N3O+Y@"SM (TOOZQ/#,H M*C$#-
V\DGY_1D'F(HI2!+.#&,8I.E]%9#1^4 M)1 4#H3*@:!Q8ZJ0NOWA0*4A4(U1D&E:*"',@5 V$7#%_[01PM+ ^0*=K_(I- M>TN.1X89!@?]PlX* 0(.@eIQ"3)%5Z85V85M23PJ$\ ^9>H0VFS/U
M"&TP0^K1VU2>@'7$MI4$M[XV=JLZYLRMM5I>=Z 64*.OV:0?5+.,S+:,@]QLL MMD\FMD6)PS:#4X>Q9/C&>$[#H>),/D))WES(6#UB7G7^9/L4<*SI%_&GO&]T
M_0B]J.T<_$W5_OQ=G3,:64SDWF]W3Y)S3T0M#8 =)F:T3%0BJS:[?I(_)!%D7E@P.7/X#ISI#]:$[ZS<$=`T;J MYC5&MNU9MH?/D&<_X9'IRIE('ZI8T:56HZT.Q4:SUY8.7,FC-WJRU! [PW9G MA)4S-
'+LB^2~)DEM&;YU6VCQL;WV\%E^Z"[X_]H*/LMB4EA_EY4+_@Z M^,A501MSLBUAK;2&PUFIU.MS%\ VF:.A,/1$ELB1K>]=!ET MU.&F*IH4Q^".O.!?[W@B=O=?
%38&%]/;K9A4'I#5U48GZ]C6%"S5;&FZ] M2KLEMX$1<>P1T>*CO.1(;G/)QIU@=BM]%L2504Q49;Z:B2/AIIVDB/&XFX MX$E3[#$QDFY74H:2@AOMG[PWF]#V&BK\W1"
[/76$NY*F:%]<>EP"3>ET$+M* ML]:I*UJK W##"AC(UDAJ])16L]%N2B/HN3:4FVJL^N\N1T(X]>D#'8EKSQP- MNS P\GV.59WZ'N"\7**?$/I$/L"_ "/W/WZ2V^)'^MGKUTQ2YWIR.:01>1&.D
M3@OS?J*7<@%?&@%B=&M731&9N94(FR(%M;/$Z(@"'$5\O. "S66B M1C*QX!>7B1PR$1_2N1H;>'3SAC5Z?NW#:&1HV.&6I0Y2El)FF4LDGC+K1F7 M7&[_N.1REF[NOY*Y6Q
GCMf.;33;"Y@=U#@.)J^ZPS@'5%P,UW862VTXNE"=M.M*2,57 R+W0HN<.54HOTI.6:Q7&[GD'5OF&06^5@V4\]E3?36 A+A&"'(>D9$ M<04>_=?)T8_QT_[%O-
#M6_KO>/X(]M:V+&RR*\IN5!;AE.RI,O9T2P7)>G^ M&]02_<@Y??];KY)MS7?EUA(XG74*LQ,B-]&PY>3CA9_ 66\.]]YT_# NZG%]EF-U,Z[(-MJX&>"&G/;6LK;9HM?
M]"IB.]E5520$INJ)A&ITR$X\.X[JXO33E6VY.Y,$ M%MB$Y396KO?_`G9;$A2I..6R1O.&SL;(.8/H] 0.ZIT.D^%$D=4)K\)J3^R M.WKKX?PYL [MJ>Y 4R9! MM\C;N?
G^M)&V8[AV4Y8Z%W M?#YW\HY$\IFOU*GAJ:,Q7ZQ?P3T.6(8KV_6A M _ .!8("UL46V880[RZ]@[Z0_M:P3-72OWHZVI!,&5^ ESRC+ \H4H&5DB6R
MKBZU_R"'6RYRST& RZ(DL7!0:.+372]NTVO>2 ^.! 0KF@KP?E0K;4.] 1P/N3D M0_EUP/L_5$=?U]./.BMJ[O;&=T^Y]4Q"O8F.VKYOS 6@]P__HE=S[!>_&@%
M/9)0=8D8L3Q"VF^(3)W&^,

*MY4H'3XUAMTD>L.8881$C;=IS^X$PY06LR]*B/!!0>54#=?)P##%#'8+R4K(&:T%57=G.?8$?P5]5U-G MCPO2"0H2U^<?OR-GE-]?1QDBIJ.9PTK@/KX26'5DZ.<&7-0%7 M0.!U>T9//S>/RML6)L,6=7G"8S/K'*E>W>Y(@]:K=N.H@-MS)GIR*G)6ZHZ\6=E5!R@G[!=;+!F>RVP;AU6)0X;MQ.2]A292WN6(;LZ?[% M1#R$EM02NFS.OX@C,^Z91#6.G6S](WR=^1PRF;E,^PF?-,;G@2-M"E[D$[HCK%4NiS["6^2A\,/*("O2EU!0(Y_T\?KF3."+=Z0.$I=P-L>:Q+$I M/$=EL_@V@? *)QSU103"H\4%^9D]XYZ6QZ(/!OEB#K"HDPE"))2-MZM)!537PVC59.^<=85B8^-+ <7>&126=4%#D(3L#)UJ9]RBPS$0"*A*]M 3:-MIEA(UD3!RL(O$W#9](=./?&V-M*5*EP)-47*#^US>U5?(#/3$18E*EM^"!<. MGK7.0%0>OV%',UQZU?_9GA*V!VC\T>BC0E)GBDWK&TXL//M:N @3JNT8+6T*K M7>W924$?8E.+4\+142&9!2>'U(OV<2#R=19'BX? 2.2%,J,"6^PATW:K3-N?OM$_TN;P"]-/^_&M M7H>,'W;(3"=\,HA$-GO%Y,.T^4CS-@D)$LJY$@(&XL[2[G^"E:B]GXX@[+$ M9J^XA',+R 82V>P5EX]*+& AV34[KK5P2WB2O>*27HFD%)Y+UL\:,$)?VD^P5 ME_:RAIRZF4PN)=+?>8>8+(C-EL!.(E^RA%6T;8R+//?Y0.2SY4UQ MZ=TU;7;Hl.RL%48W>@/KZIC]"2J8A$ F%&ZD79_FUD8*8//`K"]UKRBIY17 MHOA\FBS$VTL[/IU%+,9'_U.U4C?^%/A2-NS0I.>'F>=Z]D5 L?-"OB1T%$F0 MFE*E2FN3):R G95^[':OQ^IO/5*D;>D%)NQ;4*? 7?]|>XE;M665N:AMZ\?) M6+-4\UL1=Q:OW;?X%&36ECZY) MR2Q%;8CV$KHH=>7R=IJF+5WXI%*%KTP; M%Y&]KM"3>T)/:G'9X[+'DNREBIZ\L^CMNV>H$!=3$MN"TNV"R:N'V)VNGWF:.MLI=N]Y2=A6_G747%&KUN4U 469":U6Z.X$:/"UX>H]=,EKM#&2Y%D-I=0>K6 M8Z:6OU[@]M?>Y'2@B)[\-^44T@KN,A>X2\.78Q=$V=@0M%2W%9= 50)5[&AJ5:F@&W-MNZ$<,.31U@X'8%M2#-5%]#Z^.7S[V?K&!3%?\2!),AELI1C]!>M@J^^['3PM M7AC5'@&E4;21?%%B>?(W2<*^?1A\O_]_P\OI"N?X& M:/9M>']][\WX185?+|Z4X;=+Y>[^=WUY?7P^_75W6_O1Q^/ON7R0.[BYMO= MS9?KR^'|% <#!FO[Y>O7M_DZY^:1<#.]^5SYIN?EW!;,XS-[^D"+L7!DA$W(. M4DD$MR55#=F64'6"W]VY-@Y^YPP.9/$]WHIN.+,%2(9>)GB(V+RL5N;\+J)* ME2,=)2T!)=N*V+],V>O,- PNP/A.U%<1OE3QE=WQK/R%3Z. MNLH5X)RNR$0>42M%?PGZ+?Y0EVR*1@Z;HD+])=1O5JB_K_!?&^7!HLK=*@! M.K1*@PZE2[Z2\B[2GO>*<$2E;)I5NFDZ+6K;E396+.3ZXR<>R98L^9HWGH04%O MV*A&@7Y+O3*@&A]*OH&>/+A[?[B$LR>*%-FZC7/KL'1^X[A M+127C?$' U-H0%VNI-OOF4.FQ=Q,:P^65[SI"\WX]=IZ9-QRXE9S%$6&X[*# M\(=;R:W#9H8_V!VU2$_M#@[MY#G B.4*LXO&[!6=L'+)O:-@=D?M]\N(V96] MEUL>ZFSD*8;K^IHU9H!^KG> 2$7%*;2C|/:9VUJX$7QX&;RB>?M6P\7B #; M:LG-KMIK],K!#TJ/2]\>BU?,%-S(RML&BX ;N;4R_8BUCYKAL6S<+PI4UPX M=Q1N1J -/8>QC:,ZGVE^+6>7!+ %KR- :$TR8>,BKA$"4P(ICW0ZWQ"Y7AK M =>MJX->201<93S7K@>?%_JL'P)1WE?NR))PADS&DY?ML*MD$.EP(-OE MSY(LXYP!5V#WVO\./IZ^6F^7Q.53>@Q[H^ MHF|\K8[O&JD&P]3"KEQF/6.5?*?;'UWTR3?Y66M;2IHKIM37&IK#LDO%_KREL MZS-=8L3W "&^.6[K+P HJ94;]\+I=?I\:\4DOHWT^8.@=$2E;ZK-5DG<6ZJ M[2\0Z %:.! =:.^$WLDPB+2,I4)D'F%"R!EV9PN-NMIKEC:!MWTTR92Y%1/J M=I=\Q2#VQW9SH/;VVS>\"N,4+N)N'3;7#%U64G$OE>U-F2-".YYP7U6"[_@. M(I,_I"4O[2[X!'Y{>G2Y,#TM M%6=W27@83.]TU?,_T'T,*F.P EY\1S3$28%5&=2DR6G'D4T75GF7D$R/$% M? \B\&'[<0:]DNC1I4>]5X_/173KV1F?7'TT"^ZNR#0/WYUQ.5+|/A]#MM.8QO3DJBT+H- AA"_7)DFLF<6H>Z M8XHW#/H&KL]*O!V?&V0R@[VFLWP);?BMDU@Z36 #E>56^D>7 YWWFLI2 #HW M!UVUTR^)FE99;MN(-D.D-%6BK>2\(%_6RA_? F8E#+6\UQXN6H;CGB^@W--+X MFVTYD<^R)A]+1CUKDN*V]F76U?HE%,O_Z'(00KXLEU(2P]MQ@KY**U&*4J6F M"'2B^<.+2K26G*/DRXO9A*.\+X5<;34KN7H*CRX%>3+F2D? %;P:H?JJ!%.9 M9 6BU&6:,YY2&HW.'IEISZDYECV"|Z8F:I6 /3YKR0[2[">EY@*6Q.?\V_"F M%[K+V, ^<71-KPH!-KZ2YZB7#I_]YIV-?LU_D;C747EF;B)OJ.++FV?-?;99\ M\ EA8.(S.1OL.? +2?/[\P62H:8PQ?@FRI)%9_F&S=.;/[']C^?T/R%]V.ZK< MXYB/S+8.L):9S'_^442D[!S!#Y!4Z 49%"6?53D6.!;9BHGG?VD1^6DQ_P- M^_IJL]4M(?&>6I7H@:?)?\LSJG/M./EB>4N$8 [$U1P;JC2[O.W+&%]=K7Q:*P/FR\4/S$V/%]7^,IQKVQ$D, MTAH9Y\/,.ZUBE0=4Y;8)YW2*&%1W]RUHY,F]/1S_Z1L. ^QV0X]{^*E#C+D"' MK5MJ;U66^TT^R4,X90,K2],+F)HW=XQNH%3JM1&]WA>P-?8'FYW$>C88\9T MH2L1+V6=PB5@P)*RBTQN4<08.XD5GP I< |8T-(E!HB9%,\Y.NUNE>EZ"H\N M!X87.>? NH!@.FEZW568,KVS$G *R&O1Z^NRCB&EX2?81'90)W_V'C5_&P-?2 MH]2KQ^8BQM_M$YL.;JO>5#O-E(1]115$4(*LD+2=,A?A2F6TV"Z@4LBA MEBG +2^C)++7P3/!U;K N7=M*RU@M)*KB7V%1HH;S1[.]>3UM^K+(^R ;IH M*\HJ#65E$E9:OE9!&2C%$18FGO3[.]N3%MTX1F+4\]$=,UY:CL21*OOD(-DG M$\/2K'&5? 5*VK(CR;_T45WX]22B[.!67)Y(GW8R&Z_K -LC-"/*>WG]D,F [M'G-5Q0(##1V0\]JQ[5;CF\KNJ>D>M0-22C;;O4@/*7A/^+ZV# MIWTN>C@J W@MJ>#$A>GGKZ\]2% [VOM&7>JM;W\]J_O']\7W?XD?$,=.M!MJ MNUW:">Y@M,(5W;\TNI\B M^UX1G?Y.ENP_=AN=$MJRHH\15@WW_Z@85(I9K\ M(Z6.TZ)Y\.X5T1]P)_9SROS#U1<[F JF%&5TIG/GMG@S>;ZC=5EJIY&,O*HY MQ|&))-&BN@*>:(T\K'=4UN-07DHXR3='X=,2+Y0)8 5S5-&#*ZT,'\A3Y0Y MX5#5YO<$*TO6V!6)M$.#\Z1&L]9J[)$G'!^MO%5;A[34*XHZ M$$6U4RBJ^5(HJJ/V!FVUV3MTLI_V%%69Y$F3/%/L,_@\(O!?CR&^SFW7 F;@ MVSZF>HY,P!V Y=_+'&=- V>\J4Z63PKGV;\,?3!=HM%\J:W#$JM.3,Z(KVBJ, MNKJ@+H:T.C1+H#([1(%\QOJ6)%?=5-Z;*A4RJ4+>^?.YR; !E&9R-1*+ MVA7#XER#IC;OK8#I.YE6/:JZWFM_9@GXOP_)R/Y/- "H#>]<)-"AXBCW^22K9-MZRR;/ZKFG;M.N+=+GTY[H1F_BM._F83:\OT>_=;AKJ9 K?>/EZ=2%ORI4'<= MZN[2E',O]-M]-]5&OR2S&2K]>XW8NJ"]S:7WU M-I55.7'V94@F^'EDZPO^%?RB@65!O_SV7C<>^4\9PB#'3E6%/E85ESG&)"T' M5NYPGGA<[F)I3^$]] BL018D?\;P<8QPS/\(:/-T0[?I6ZM(W[*5.T\=B> MS35K@9Y",K 4S8&/+9)8#XYF4D\O<,$*7.9()+FZP9Z$@'O*Y,&G^)1B!P MN>O!!S1N\2S[#^?\+,5_Y'G'R!LMP1'.3QF;F@M8>?OY_%ODMA6K_^2EFHE M/@EJWCRA=,37^W3_/5@P2O8"TDKD(5)IB2XPG=0<^RE09Q)?C9EI*K>?O_WX MFOE,;4DB3%O(^K"4[H!'4@4C_T<_7$;J&VWP\]7M?/O5\-_U8:?[J^^_ZIH MYI.V<&6Z *9=6RSVXA^4*>-0;&):@=#\V_E:G/W#?DB(HOGKS/@WBOU^F0QR/ MK@AXW]\/P&5X61XS$LY6+*(_X%/"(NX!'\('4@[O?H+A\46.ADNP M;_X,0# [.IP_&I>FVYAKNS>06)"H&D%$.#BW1#[!E3,# L;PAL%P?D\;>,@$T M8X.Y]_"(,8!)>'A*5LXV^!.YOQL=+.$S'F'O"L7GNN\]D7%=NR?BX]_=/V5HN@!1> MFQ-C5? _Q7<^8+!*]286*T[P4=@HN-X0_'-!==>)Q+?O% .T(N7!M$? NT8&$,IX:H$$ M>O@H0GL"V<:.G12G_]:>@'3FJ\@DD'# _^$%3>5+&#)#2\!I_TPR(EBCBA2Y2B M*2[\;)KP.2 -(T F3UX)2#E1HPD4@"_!2PU-\SS !Z"[(AD>&:EH&Z7I3P|&) M>FO4H)54-]_T-,J*AO605VG.&/89(5]BX&/-0>+U/=I(:"Z-W@E+GINVA):#K*N,CZRE3#+QZ9"7!#P#PPBRGL>0[HL MR&D/31-RK!QT=,O&M M!Q\V/CIXQR4\^"XD7CC&!8=BY5]OW=^2.7 >GCL%9 V^@1N,AO@'(, MSXWB5 171D).X9V7P!O(+)SD6(1,",$Z! OREE@3KB7X&(W*16I. M7 M@ / F$'$B8_Q&$12&OK8)3PG?+@O00() M&3(P'_OWSL:H?D9N "FMC>3O"W@W[8&L$OA\//&Y MJ FE P)#QW^Y:>!?X%ZCCPW=E;R%F2\(=(9>+2/MOG(1809R%\##@CY(S93 M#40PE.:F!B:VD,&D/HAC[_E$9QGG]T(+00CP8T2P@U_%SH"2RP9S$'6$!T9T M7@1RPYH"K^%NRWZ$S0+B+*.52O1O /4'/KX/2 N?#1B'HB7T$-4/IY9=IV^ M'U7'<'N:Z=]ATL0_0T?U:,&B)3?=K_Y(2*? 6JG<"Z(*#KD)Q&?DV*P93A32U_NS<=VB^@&D_U7" 0(3& M9LP#W$<56*ACG-*6N61$%UK6?V+J3ZAX36Q:5Q7+IY#YV!9_) (TRJ0CH6+L M5%-/_]BH*/=']N** 8$2B"8NF:\&F;#;>U$H >R+\:=OZ(:W&%KZ!6"5IYG? MPO0FO&B@1Y"U8\+ ^3?A,*BO0[C6[2B/K D7+=X)N:Z06^3\6.R!"S- +!CN/##049GRLW3ER%K#'9;U9 M8+A*M3K"2@7?E#:W&)DB6!G1WPQV"4.^W3_W)@S.Y"]8#IJV(L5^-[$=X@Y M:IH#2=TH^PWW&*0@6)RE,.@9' XY$KAFQ3T^CNT_<*,4+N: [%RGS:>Z.E5N27IG8RSB: 0)[M+*@:/N-Q,B8":9&30K?$!$[JQ2B[?=WDVT?B42P;19D#G+-B%_.YQKA XG-M,%8>'ASD!&B^ *,PYHA3E+F%R/'WC)A\MY'6(@/$?*M6[_^!&6#7%MC&/AX\ MX>X8Y9A.W<,N\'3\5**GN09R\?#I//H/SRY+(C@=W-G0-32C,SYVSY:S(X%] ME:.P58D_9+UX?R\O?@M?9[^Y3&#)E_D4-5OF8.A*6"5 2QJS=S .:[YV$^!-MQ2*Wl$BMJQ<1)*3;T$^_/H@$^+1+|W/|"/$$+*GO T0,G!!AVO3@J$S&K 3 ML?*1L-.$4R=N#Q^#2#'X\"[NUV//;.8##B2I_*$-.!EG?]$!'O ^]%G&=MNT MO[?:N[<9%S7IHG>2?1*8N/P9\K[B6>&E0:NE<%P_ME2O CXGFC%0%-#0%0WR&+@V=BZG!)LK5, ^R2](<;" D9!MS I'U/;U/EB,]M!>:)EGEWG M%P[7%5+-]CW7@UU*#5H@ A6)[^.H.P/;1"P8:&^@4""$WF &VTH8K2QZ5+QZ< M/A2)K_?%MA[NP=S> 9?X8GU.2EKB>< _!>Z-2:!:B*=K&W\AP"P*XD%-0%GVSG M)R&$4%)0B[GRA-XF9V[39 @NID-9U.I+3L:)\DCT!S&-^X2(F$&"!7" M\U\D$,&B.2B(G<%UL:4Y.JYT:,"W[^'MVD'@,T!22^RY++T*]X2F P@..>@=ML,.@4HR9C7(O-S10)$M6M >'D7UVI@S=-2:0\D_?8DJK'O- 19%-.SHFI\6JT M\\4/R_C39Y&,-$*+2+W:)*RA!P@:&T.+(057N_$02LY5I.W)U 20IF):I'] MFPMJ\\H2M,]-Z _U]Z"'?]0UA7PWXX&4]D7'<$U^:HN?=3E>1-TNM9=<=8JA M];PMVJO-UEF!VUH"NU!4H[^]HY!*.E.(L2EK",/P$_&$,%\1F0$)D6Y4HEV4D^-(55A2D/ M>)ZD-,O^C_PB%NBW-5100X>]8S]Y/+0!RBPS&=F=>"UY!A@&A>W?!ZB3 M@<.D#F ,@O9IO61HF0D)!DMAL77!)'/R@[!LN\O+0:%FO@TUHY+B?\D (J M>NC)2.45CV -$MFB_;,#WXV(99%2$ 3Q(N$)0L41AH'0;6>(5+D98QYM,\C? MQ?1CF<86S5 P@U"N@WMW..L@; /=V628$\M],L]KDF.9^V@Y09=G MBM!=V+!E1@_&K%#7YUYG%SV3F6\+R+-3@:@ZZHYG(-7MR;.LA#*F%YP4<)-NV M#I83XRO1DX$Q4=\D]_,MXX)*!BO!*1P CPIK[%\UDQ)@PO?"V*/39DQ1$HSP*/1@E:+8;R.CNX1-_S"B^Z:. NYG M&%C$XD>.D6&,4<0S0!88GGJ<"]+!C&E5X19'M/9ROYHS SN&%>!FY/;8TX!-M5(42LCG#QI? R%H'#$5XEEML6ZL:,$T^)>*%??2]J#!WA3 M5J?,P)2!\F1J4HJHF,B0+MKM.BD%@LPGP>Z2KM' "8K6KT/F;B8(.00?@-" MKS+&SP(Q,ZBQC(BV*/,%CU!R+$81!W0- HN\WX4GM$ZT1P TH2!Z?(W3LB, M-TW^0BYFB7(4@%5TP^1A"\SIDAA*MJIP!9R$%B1U4Y%X=-B\GSQ;W7-]$ 4N M+;#>]NC:NX- 57!68D9:HZTM4[ZW)1.OERT3;$+!]HRX@)T6)$6=V9%JS9*/ MS4N/]22X)M\RI00^5MZN\]*2M87N21M5XSBRE/-D9HGX*F@=X#.P7B6$FB. M\#XH:B@'C6H3Y@Z;:TZZ'__'V=V9#,?!0F@9S7%S6DCE(1 3S:#_/!S>2H^N MR!E&#=6W=%EH%N$2=Q@2!L/W'G%31\(8?80D' M!TMH;*9S*RC?# 9(TND(N 5"B!=W;%I MNSZZ1CC"4N2-%"\"_EH4BR!&B)BHDH >1EF$OH/Z/ED ME.^<"@[0[=#BCL@% M>"[']V&I!R:MA>4V_-:19FI4N1,^G:'J9VE>[DA M4E>RDF/J39'@(J,_(6S0+AA:ED_9OV1V\9IA97[UP1%^*=EE=K>0)/L&@ MZ152VB]LU2\CJX'#@3IFR*=E'62/'[7<5Z3MPZH>$$=NJ[%K7XV-ST5VU@@: M9<0[9>2'&:GR.00['NH+CP#F=_LK$9ZD/1#'40.)GZ)#2*FQGFTY,(*95FB> M@66/VY+6?U#0A8Q,2 ^X'-T7Y)*@1 .5'F$ _L #+(99UV@$D/L)+$$#C?*(M"HA+8847A0U<^1W3(TE(C*0\&7E]GE]"7*[!LE$G32- MQ\O%=E'RC.Y11Y _AG- ,5]>,F)@>$.XOMK;=@]=V Y(@L'_:^H0.M[< M4)0+5?I4QKV[CS4?@4"++:$_'.N>R!$T00QZ;D2- T M>)9I5!,.RL^G]A,>,2]XX:VG3+"C-$IMB7MK,1SEQN MI/]PV618[F%?=ZL6@-&@#Y,)N4+;]\"(H"IJ)*3.1,*SJE!W 5 M)325N9P\"W&1BV511>#M55BHN) M6$? XBF=8:N&3PLG5L%P!&-W D$\0DW2CQ_=?CU_!$G"QB0AX6 M>_5]A)5:F@&W-MNZ$<,.31U@X'8%M2#-5%]#Z^.7S[V?K&!3%?\2!),AELI1C]!>M@J^^['3PM M7AC5'@&E4;21?%%B>?(W2<*^?1A\O_]_P\OI"N?X& M:/9M>']][\WX185?+|Z4X;=+Y>[^=WUY?7P^_75W6_O1Q^/ON7R0.[BYMO= MS9?KR^'|% <#!FO[Y>O7M_DZY^:1<#.]^5SYIN?EW!;,XS-[^D"+L7!DA$W(. M4DD$MR55#=F64'6"W]VY-@Y^YPP.9/$]WHIN.+,%2(9>)GB(V+RL5N;\+J)* ME2,=)2T!)=N*V+],V>O,- PNP/A.U%<1OE3QE=WQK/R%3Z. MNLH5X)RNR$0>42M%?PGZ+?Y0EVR*1@Z;HD+])=1O5JB_K_!?&^7!HLK=*@! M.K1*@PZE2[Z2\B[2GO>*<$2E;)I5NFDZ+6K;E396+.3ZXR<>R98L^9HWGH04%O MV*A&@7Y+O3*@&A]*OH&>/+A[?[B$LR>*%-FZC7/KL'1^X[A M+127C?$' U-H0%VNI-OOF4.FQ=Q,:P^65[SI"\WX]=IZ9-QRXE9S%$6&X[*# M\(=;R:W#9H8_V!VU2$_M#@[MY#G B.4*LXO&[!6=L'+)O:-@=D?M]\N(V96] MEUL>ZFSD*8;K^IHU9H!^KG> 2$7%*;2C|/:9VUJX$7QX&;RB>?M6P\7B #; M:LG-KMIK],K!#TJ/2]\>BU?,%-S(RML&BX ;N;4R_8BUCYKAL6S<+PI4UPX M=Q1N1J -/8>QC:,ZGVE^+6>7!+ %KR- :$TR8>,BKA$"4P(ICW0ZWQ"Y7AK M =>MJX->201<93S7K@>?%_JL'P)1WE?NR))PADS&DY?ML*MD$.EP(-OE MSY(LXYP!5V#WVO\./IZ^6F^7Q.53>@Q[H^ MHF|\K8[O&JD&P]3"KEQF/6.5?*?;'UWTR3?Y66M;2IHKIM37&IK#LDO%_KREL MZS-=8L3W "&^.6[K+P HJ94;]\+I=?I\:\4DOHWT^8.@=$2E;ZK-5DG<6ZJ M[2\0Z %:.! =:.^$WLDPB+2,I4)D'F%"R!EV9PN-NMIKEC:!MWTTR92Y%1/J M=I=\Q2#VQW9SH/;VVS>\"N,4+N)N'3;7#%U64G$OE>U-F2-".YYP7U6"[_@. M(I,_I"4O[2[X!'Y{>G2Y,#TM M%6=W27@83.]TU?,_T'T,*F.P EY\1S3$28%5&=2DR6G'D4T75GF7D$R/$% M? \B\&'[<0:]DNC1I4>]5X_/173KV1F?7'TT"^ZNR#0/WYUQ.5+|/A]#MM.8QO3DJBT+H- AA"_7)DFLF<6H>Z M8XHW#/H&KL]*O!V?&V0R@[VFLWP);?BMDU@Z36 #E>56^D>7 YWWFLI2 #HW M!UVUTR^)FE99;MN(-D.D-%6BK>2\(%_6RA_? F8E#+6\UQXN6H;CGB^@W--+X MFVTYD<^R)A]+1CUKDN*V]F76U?HE%,O_Z'(00KXLEU(2P]MQ@KY**U&*4J6F M"'2B^<.+2K26G*/DRXO9A*.\+X5<;34KN7H*CRX%>3+F2D? %;P:H?JJ!%.9 M9 6BU&6:,YY2&HW.'IEISZDYECV"|Z8F:I6 /3YKR0[2[">EY@*6Q.?\V_"F M%[K+V, ^<71-KPH!-KZ2YZB7#I_]YIV-?LU_D;C747EF;B)OJ.++FV?-?;99\ M\ EA8.(S.1OL.? +2?/[\P62H:8PQ?@FRI)%9_F&S=.;/[']C^?T/R%]V.ZK< MXYB/S+8.L):9S'_^442D[!S!#Y!4Z 49%"6?53D6.!;9BHGG?VD1^6DQ_P- M^_IJL]4M(?&>6I7H@:?)?\LSJG/M./EB>4N$8 [$U1P;JC2[O.W+&%]=K7Q:*P/FR\4/S$V/%]7^,IQKVQ$D, MTAH9Y\/,.ZUBE0=4Y;8)YW2*&%1W]RUHY,F]/1S_Z1L. ^QV0X]{^*E#C+D"' MK5MJ;U66^TT^R4,X90,K2],+F)HW=XQNH%3JM1&]WA>P-?8'FYW$>C88\9T MH2L1+V6=PB5@P)*RBTQN4<08.XD5GP I< |8T-(E!HB9%,\Y.NUNE>EZ"H\N M!X87.>? NH!@.FEZW568,KVS$G *R&O1Z^NRCB&EX2?81'90)W_V'C5_&P-?2 MH]2KQ^8BQM_M$YL.;JO>5#O-E(1]115$4(*LD+2=,A?A2F6TV"Z@4LBA MEBG +2^C)++7P3/!U;K N7=M*RU@M)*KB7V%1HH;S1[.]>3UM^K+(^R ;IH M*\HJ#65E$E9:OE9!&2C%$18FGO3[.]N3%MTX1F+4\]$=,UY:CL21*OOD(-DG M$\/2K'&5? 5*VK(CR;_T45WX]22B[.!67)Y(GW8R&Z_K -LC-"/*>WG]D,F [M'G-5Q0(##1V0\]JQ[5;CF\KNJ>D>M0-22C;;O4@/*7A/^+ZV# MIWTN>C@J W@MJ>#$A>GGKZ\]2% [VOM&7>JM;W\]J_O']\7W?XD?$,=.M!MJ MNUW:">Y@M,(5W;\TNI\B M^UX1G?Y.ENP_=AN=$MJRHH\15@WW_Z@85(I9K\ M(Z6.TZ)Y\.X5T1]P)_9SROS#U1<[F JF%&5TIG/GMG@S>;ZC=5EJIY&,O*HY MQ|&))-&BN@*>:(T\K'=4UN-07DHXR3='X=,2+Y0)8 5S5-&#*ZT,'\A3Y0Y MX5#5YO<$*TO6V!6)M$.#\Z1&L]9J[)$G'!^MO%5;A[34*XHZ M$$6U4RBJ^5(HJJ/V!FVUV3MTLI_V%%69Y$F3/%/L,_@\(O!?CR&^SFW7 F;@ MVSZF>HY,P!V Y=_+'&=- V>\J4Z63PKGV;\,?3!=HM%\J:W#$JM.3,Z(KVBJ, MNKJ@+H:T.C1+H#([1(%\QOJ6)%?=5-Z;*A4RJ4+>^?.YR; !E&9R-1*+ MVA7#XER#IC;OK8#I.YE6/:JZWFM_9@GXOP_)R/Y/- "H#>]<)-"AXBCW^22K9-MZRR;/ZKFG;M.N+=+GTY[H1F_BM._F83:\OT>_=;AKJ9 K?>/EZ=2%ORI4'<= MZN[2E',O]-M]-]5&OR2S&2K]>XW8NJ"]S:7WU M-I55.7'V94@F^'EDZPO^%?RB@65!O_SV7C<>^4\9PB#'3E6%/E85ESG&)"T' M5NYPGGA<[F)I3^$]] BL018D?\;P<8QPS/\(:/-T0[?I6ZM(W[*5.T\=B> MS35K@9Y",K 4S8&/+9)8#XYF4D\O<,$*7.9()+FZP9Z$@'O*Y,&G^)1B!P MN>O!!S1N\2S[#^?\+,5_Y'G'R!LMP1'.3QF;F@M8>?OY_%ODMA6K_^2EFHE M/@EJWCRA=,37^W3_/5@P2O8"TDKD(5)IB2XPG=0<^RE09Q)?C9EI*K>?O_WX MFOE,;4DB3%O(^K"4[H!'4@4C_T<_7$;J&VWP\]7M?/O5\-_U8:?[J^^_ZIH MYI.V<&6Z *9=6RSVXA^4*>-0;&):@=#\V_E:G/W#?DB(HOGKS/@WBOU^F0QR/ MK@AXW]\/P&5X61XS$LY6+*(_X%/"(NX!'\('4@[O?H+A\46.ADNP M;_X,0# [.IP_&I>FVYAKNS>06)"H&D%$.#BW1#[!E3,# L;PAL%P?D\;>,@$T M8X.Y]_"(,8!)>'A*5LXV^!.YOQL=+.$S'F'O"L7GNN\]D7%=NR?BX]_=/V5HN@!1> MFQ-C5? _Q7<^8+!*]286*T[P4=@HN-X0_'-!==>)Q+?O% .T(N7!M$? NT8&$,IX:H$$ M>O@H0GL"V<:.G12G_]:>@'3FJ\@DD'# _^$%3>5+&#)#2\!I_TPR(EBCBA2Y2B M*2[\;)KP.2 -(T F3UX)2#E1HPD4@"_!2PU-\SS !Z"[(AD>&:EH&Z7I3P|&) M>FO4H)54-]_T-,J*AO605VG.&/89(5]BX&/-0>+U/=I(:"Z-W@E+GINVA):#K*N,CZRE3#+QZ9"7!#P#PPBRGL>0[HL MR&D/31-RK!QT=,O&M M!Q\V/CIXQR4\^"XD7CC&!8=BY5]OW=^2.7 >GCL%9 V^@1N,AO@'(, MSXWB5 171D).X9V7P!O(+)SD6(1,",$Z! OREE@3KB7X&(W*16I. M7 M@ / F$'$B8_Q&$12&OK8)3PG?+@O00() M&3(P'_OWSL:H?D9N "FMC>3O"W@W[8&L$OA\//&Y MJ FE P)#QW^Y:>!?X%ZCCPW=E;R%F2\(=(9>+2/MOG(1809R%\##@CY(S93 M#40PE.:F!B:VD,&D/HAC[_E$9QGG]T(+00CP8T2P@U_%SH"2RP9S$'6$!T9T M7@1RPYH"K^%NRWZ$S0+B+*.52O1O /4'/KX/2 N?#1B'HB7T$-4/IY9=IV^ M'U7'<'N:Z=]ATL0_0T?U:,&B)3?=K_Y(2*? 6JG<"Z(*#KD)Q&?DV*P93A32U_NS<=VB^@&D_U7" 0(3& M9LP#W$<56*ACG-*6N61$%UK6?V+J3ZAX36Q:5Q7+IY#YV!9_) (TRJ0CH6+L M5%-/_]BH*/=']N** 8$2B"8NF:\&F;#;>U$H >R+\:=OZ(:W&%KZ!6"5IYG? MPO0FO&B@1Y"U8\+ ^3?A,*BO0[C6[2B/K D7+=X)N:Z06^3\6.R!"S- +!CN/##049GRLW3ER%K#'9;U9 M8+A*M3K"2@7?E#:W&)DB6!G1WPQV"4.^W3_W)@S.Y"]8#IJV(L5^-[$=X@Y M:IH#2=TH^PWW&*0@6)RE,.@9' XY$KAFQ3T^CNT_<*,4+N: [%RGS:>Z.E5N27IG8RSB: 0)[M+*@:/N-Q,B8":9&30K?$!$[JQ2B[?=WDVT?B42P;19D#G+-B%_.YQKA XG-M,%8>'ASD!&B^ *,PYHA3E+F%R/'WC)A\MY'6(@/$?*M6[_^!&6#7%MC&/AX\ MX>X8Y9A.W<,N\'3\5**GN09R\?#I//H/SRY+(C@=W-G0-32C,SYVSY:S(X%] ME:.P58D_9+UX?R\O?@M?9[^Y3&#)E_D4-5OF8.A*6"5 2QJS=S .:[YV$^!-MQ2*Wl$BMJQ<1)*3;T$^_/H@$^+1+|W/|"/$$+*GO T0,G!!AVO3@J$S&K 3 ML?*1L-.$4R=N#Q^#2#'X\"[NUV//;.8##B2I_*$-.!EG?]$!'O ^]%G&=MNT MO[?:N[<9%S7IHG>2?1*8N/P9\K[B6>&E0:NE<%P_ME2O CXGFC%0%-#0%0WR&+@V=BZG!)LK5, ^R2](<;" D9!MS I'U/;U/EB,]M!>:)EGEWG M%P[7%5+-]CW7@UU*#5H@ A6)[^.H.P/;1"P8:&^@4""$WF &VTH8K2QZ5+QZ< M/A2)K_?%MA[NP=S> 9?X8GU.2EKB>< _!>Z-2:!:B*=K&W\AP"P*XD%-0%GVSG M)R&$4%)0B[GRA-XF9V[39 @NID-9U.I+3L:)\DCT!S&-^X2(F$&"!7" M\U\D$,&B.2B(G<%UL:4Y.JYT:,"W[^'MVD'@,T!22^RY++T*]X2F P@..>@=ML,.@4HR9C7(O-S10)$M6M >'D7UVI@S=-2:0\D_?8DJK'O- 19%-.SHFI\6JT M\\4/R_C39Y&,-$*+2+W:)*RA!P@:&T.+(057N_$02LY5I.W)U 20IF):I'] MFPMJ\\H2M,]-Z _U]Z"'?]0UA7PWXX&4]D7'<$U^:HN?=3E>1-TNM9=<=8JA M];PMVJO-UEF!VUH"NU!4H[^]HY!*.E.(L2EK",/P$_&$,%\1F0$)D6Y4HEV4D^-(55A2D/ M>)ZD-,O^C_PB%NBW-5100X>]8S]Y/+0!RBPS&=F=>"UY!A@&A>W?!ZB3 M@<.D#F ,@O9IO61HF0D)!DMAL77!)'/R@[!LN\O+0:%FO@TUHY+B?\D (J M>NC)2.45CV -$MFB_;,#WXV(99%2$ 3Q(N$)0L41AH'0;6>(5+D98QYM,\C? MQ?1CF<86S5 P@U"N@WMW..L@; /=V628$\M],L]KDF.9^V@Y09=G MBM!=V+!E1@_&K%#7YUYG%SV3F6\+R+-3@:@ZZHYG(-7MR;.LA#*F%YP4<)-NV M#I83XRO1DX$Q4=\D]_,MXX)*!BO!*1P CPIK[%\UDQ)@PO?"V*/39DQ1$HSP*/1@E:+8;R.CNX1-_S"B^Z:. NYG M&%C$XD>.D6&,4<0S0!88GGJ<"]+!C&E5X19'M/9ROYHS SN&%>!FY/;8TX!-M5(42LCG#QI? R%H'#$5XEEML6ZL:,$T^)>*%??2]J#!WA3 M5J?,P)2!\F1J4HJHF,B0+MKM.BD%@LPGP>Z2KM' "8K6KT/F;B8(.00?@-" MKS+&SP(Q,ZBQC(BV*/,%CU!R+$81!W0- HN\WX4GM$ZT1P TH2!Z?(W3LB, M-TW^0BYFB7(4@%5TP^1A"\SIDAA*MJIP!9R$%B1U4Y%X=-B\GSQ;W7-]$ 4N M+;#>]NC:NX- 57!68D9:HZTM4[ZW)1.OERT3;$+!]HRX@)T6)$6=V9%JS9*/ MS4N/]22X)M\RI00^5MZN\]*2M87N21M5XSBRE/-D9HGX*F@=X#.P7B6$FB. M\#XH:B@'C6H3Y@Z;:TZZ'__'V=V9#,?!0F@9S7%S6DCE(1 3S:#_/!S>2H^N MR!E&#=6W=%EH%N$2=Q@2!L/W'G%31\(8?80D' M!TMH;*9S*RC?# 9(TND(N 5"B!=W;%I MNSZZ1CC"4N2-%"\"_EH4BR!&B)BHDH >1EF$OH/Z/ED ME.^<"@[0[=#BCL@% M>"[']V&I!R:MA>4V_-:19FI4N1,^G:'J9VE>[DA M4E>RDF/J39'@(J,_(6S0+AA:ED_9OV1V\9IA97[UP1%^*=EE=K>0)/L&@ MZ152VB]LU2\CJX'#@3IFR*=E'62/'[7<5Z3MPZH>$$=NJ[%K7XV-ST5VU@@: M9<0[9>2'&:GR.00['NH+CP#F=_LK$9ZD/1#'40.)GZ)#2*FQGFTY,(*95FB> M@66/VY+6?U#0A8Q,2 ^X'-T7Y)*@1 .5'F$ _L #+(99UV@$D/L)+$$#C?*(M"HA+8847A0U<^1W3(TE(C*0\&7E]GE]"7*[!LE$G32- MQ\O%=E'RC.Y11Y _AG- ,5]>,F)@>$.XOMK;=@]=V Y(@L'_:^H0.M[< M4)0+5?I4QKV[CS4?@4"++:$_'.N>R!$T00QZ;D2- T M>)9I5!,.RL^G]A,>,2]XX:VG3+"C-$IMB7MK,1SEQN MI/]PV618[F%?=ZL6@-&@#Y,)N4+;]\"(H"IJ)*3.1,*SJE!W 5 M)325N9P\"W&1BV511>#M55BHN) M6$? XBF=8:N&3PLG5L%P!&-W D$\0DW2CQ_=?CU_!$G"QB0AX6 M>_5]A)5:F@&W-MNZ$<,.31U@X'8%M2#-5%]#Z^.7S[V?K&!3%?\2!),AELI1C]!>M@J^^['3PM M7AC5'@&E4;21?%%B>?(W2<*^?1A\O_]_P\OI"N?X& M:/9M>']][\WX185?+|Z4X;=+Y>[^=WUY?7P^_75W6_O1Q^/ON7R0.[BYMO= MS9?KR^'|% <#!FO[Y>O7M_DZY^:1<#.]^5SYIN?EW!;,XS-[^D"+L7!DA$W(. M4DD$MR55#=F64'6"W]VY-@Y^YPP.9/$]WHIN.+,%2(9>)GB(V+RL5N;\+

*CXUM -7Z,CR6 M;^O6L;&48U<_'N!PJU-E'9P;+C4W=;$=)#]7|B#9IX* M7SY2('0-^63DDV60#P!^2L"]H/;_G;I:,/8K_EM^G,E(]#HPSJB#3OF3L?8? MH]XOEZ4V#B5GK]\@&:6?D7ZUT;@(.L]=LZ0&ZJ!UR%!BE2557L3,R)(Z.&+V M!FJ]_<[)8,:IJN]54 M.\U&R9)O*APM!8fNG"96#(YV.UVUW>Z4#$>S$L3"UHVE22DYW40L3%8)}//U MB5B=I;8:AT[sP@TK5X'WKTK$(H!(=^@K3L3*GW;5K-*NJBR)DTS-J=*N7NI9 M5FE7+X"\A5&E7+OfL+SWM:M^1H2LQA%EYTK!Q*R93WQ)/G!=KE5PG^QWPS%]@#CI$?,4"PC%FV^Y^/@U7;Y5P?!JV:OK=;[MY6?>>R]8$$8V;#"':V-L/-:$/-LS^-[_^K;W(? %0_N&>LV!7O4?1E+?58XJA MOA6/SJ3 75*QD B!V"9 ;+"N9GYB.ZM,[8,:ZNZ3Z,J,!2|>V79)K]H#LC4; M=;5>WV>A3{S*8F.7J7>OHH,O\'6241R!%XB(KF&!"?&,]-K?S'"7](^FI?4 M_%"R!, <*+X^#EULG#FV'EVOK,0ZDAU2=!*O$NR(2[P:#'??XXDBGWZNKG<$^_MBYF]_- 31=-!O;ZC!5 @AU?KG9[:Z!Y_3],%\%8CA6E]&WOBTG.G8OK\GGZ M!QYN-RDY@ =|^!Z&3E^R"0/4UB^F\"B9P+HJ=76IV|KW#K02MHY4+V_6R M\EF7/8=:,[&4UG\Z>MICEB]S&RVCQ79D\&D)#HFC .0F ;3&'"G(K&C^NV'1 MA%$<+-WJB89(GAK\'T9L-U? 9IW;>/DWY&GX(Q4QT<_,$]"P(&7WB)\CGO&89.Q M-PJ"XK36U ?@7%9M9H.*^5=T<"F.% W2(O>KF;]P_?_UF;S#Y?T6^/#.\&(MD..(J!?-)19L_TP1UT>NDWPB.76@A!RT,?/)_$?.]>!H M,RX7;/2:*_ (ORW<('S/\U+/,,%!:#I<_A^6BJ M!'OBA'F*"#EAN:.XRW4 .FR1I-/'28F MD^/[&5>ZQC,_C@\G5QAA:^XYW K=O.890:HYG],,.,6+AMQU)4.%<--417"5 MB-VQ; (@R(L*:H70Q0^PYHWBH5;+BH0U4AVW+BM)=HD5:(*N_P_:*+77;:S7K*E@!8LH7OD14J7SEWNR+N)CE8OLJ77?:]=O$#T^)50X4FH<:54X4N%(Q4-\JAY(KN7DOBHDL M5^\I\K5BS_Z1,&,[[F&SI:D*]'I,#F.!&931[H/0]/&\3JR#'!FN!6E,Z^V^MOA,D,%S"\;F5OIG'DIDZ(DR-QQJ>W6 MIO4(%3*_,&1NIW/F1CDY/Z%P68R9>U+\G+^NQ#)A;F0&I MQ#(@7Z#QLN9196,DG;W:*\&QBW9ZE'JX+1.I=]5^OU+0^MR5N-O=]WE2*.ZV M>V]f46ES%>Y*W.WMU1HI&G>;C9;,,)12=:MP]RBXV]^K\5$H[@X&;K=>2OIF M6C14Y-059W- >R XWP!-YB_YDM M94"GT5&[S7*8$L6T]*VHY=2H94723D&=Y'4,FCT2N.;]ICE=5++BLR4@NSP M(]FEH=9;?;55T4M%+WNF%RQ]D]NMN6Q<,YYK4T,'N^+7@&ZZB)"]9E]M-/]_ MO<<[2HN&9>W-T:PK9VL^JHRL@\FV>+!1;4W>]PJ$DKJ_07(G&!^5_ 0XX!\A801(MFWQV#Z=!TNM RL"AD>XA-\;X+:**PG,5CW.4'5JJ3(!\$F\U0O!EAWQ9"7<$X M^' & (%!+^7;,\"840C6Q2OP>^,4U --)N4XY7PH"(#88U6\AN]2,#F0+';X M-BB.-,3*H,0XC@UT*1EKY"+!JX$7.!0QU/\]8 I5C6>@'"'"&4(ADOP.DLCW"&I-+ @= 4-I>!J2N(7VB(,PNIP7YZP: (6,/ ##<;,/R\!'9W'8- M? /"U1 F_W"S2*+_ "U>,.H@%;A?\,R8+^*VB,SP96Y!L31KN2-_*84OP%G[F"!OE*!T96%Z],SYEYG[*36W2$ODP-L&E?)9 <)^HBKZ M =C38/T$ ^B9YH!&YAYZ N/O<=0#ZV^0@^U"\Y\FP M>$ 0-?#$6,2E8UOG;SDB,]K4#7?/$K;X$[\RU-9GI%Y[SG3&=)M'=<;P32IP M2_8*_=.QF.I24.EO$_]#I81\ZIG<-X^KYKQW?_//A,:XT6Y4?:]0BT^;*]YF M]=,LF^^,F+.+S(^+,L(8#S&54#?BOB8X%,P RPV,;@:0K+A3!FB."H:>KL# M R54X;NZ!.5K-@*!U&K0SEK;'5.@9R%(A2%$$^S^GI$XT^OU4L:J9V;+)&=- M R<8TM,B 1;.L7"X>C=_=DSGS<=&[VRY)N#'(CW]G M[MER/4'LG6B>HSCO.1]Q."[.E,M094NJ8#QJLT"E#6- &KEY08-QA7:(]_B6 M\/EZ:.4]. [-9[1]4%6$PQ06YS:B1_0I/ U$KM++#ZX-^R- 3H'I2I1J8A7&VX M4]3DE,S36%%INSHUZQ:>&,O-6CH6# :0=C5$SRO.=+[@FVP7V^9@WD-P4G5 MFKF/JHY=@^I+|_4+:9]- N87:]7()2F<, VPF95TUXPI&6-9.R;Z*@5]AL4..Y]HTF4@YE(§QN-@^N1M$^+KGZ#N!+_]QRZ>B;$\ 4C>(Y<&)D%/?-!4 -]OU(C@>X.1?<=Z.?E#SY3P'Z9, - %?])K0U%&T#O&8]\YB.OB95(6&H@ ;%)- M@'&+P^.'%M>V MQP U>2NP:?)-10G!<-*YVA>PZSF@3&< 3R&$53%-/XR4QC M:MM$HH" !I"3Q'YR& +&&!,#T2O<,U(;]WA1#)T0UV&$EH!-%$(_F%?F<'E# M.R4)[.%7N'5YP^! MX@3(8 %@T'!$TN:2!.4%LA5?Q&1UX]$@TS&X-,P, 1D"E\Z]]"M4]O4&0AW MX95_HIQL9&S<.E/ _$++!=B=0 M9&\)7)*2O8827G4412B%3D>+ITU[7?QT^X R_Y)"5\)D&2&+C=F"=) 45(I%<+ 1'J@:(3?Z5+2*HY)AA MSV"L&LJW,7K'P-,YRE T15!J=+,L6^F9AJK#?[,039LR; HA*@%[\#++7& ML:VJ(S-?+DYD[+P*#?UX,9=BILY,/!(]S6@54^C-"_YI RO33]?L?8?0R , M3AF/!"Z(]%WQ>@/]DV//+HB3<%OMUOU¥XOT!8;/AELCM3EJUZ%E^Y5\'Q%O M$;V3%% <[;FM(D<; B53/[4.Z_O;IS<>,.L#A(NW>_>Z^'^ATL#M!!<$P 'N\/.$;W^]V/$SC61J.G#IJ= M%9[<\+!\"H+SA =Z5<&9\=5$#"7P\TEY Q_]H,Q"VI[@FNZ 1\R!.\$K8^ MG1]W/YW Z774/C#.9G,Y(#9Y?)*R2U1+6AO&3N+0AVBO?H&0]*W,>;$^ MSY&@:DJBC# E&3/;.A(L9WPS^Q=%MJO;TO8 MEHTA2:HBY*C2QTRO+4H!3(Q\& I6DGY9GM'>N&*Z+B>"1@[U#+Q]%GWI, M*3R65?8B$QAJ&1?513^)L- A3$)4WMI; MR-=YCR@V)D7"^ONFY\2CZ262\EW-_;_CT-Z"1 MH_+I7IQ/WI$'"B-_#R(X^9AULQ\P:!Y0 @:#5R(\EXM?)GE)C)T]X0VNN'"%2 ML,'9-Q/U-W,'# ,'H.I"Q_8?]@JSID@!>O0>,63[7]P<6BXLP^|\&^)>OG4? MSM'A9.5S6(M'1U?&5(Z,9:-%^@^^22PGJ(.1>;)3@TV4FR E%"0WS\3^]F'- MRUM9Z71S^57FVXCN*,+*$07CD6@<^?"CKU'E/PG\?E/G!2_K-V%%7O !H<%Q, MR-L,X'!DZG'AN70VE*@#IL[=HQY-%/!K2W)63(7#KIND_(A,AKH!N+,L- PLW#R+B"MR=(P0QP#!:%%CU0L)RK!0OJ*/$K/?>YG MP]8H0O\0O!!;1\34CKD_BM.&?FN09I1 +\;N MVVKH.4Z@-%]C*UU("!PZ2197B-)MZ$P&'RN]Y,57XKW:[HI>- >M7^L*SM#¥/T-M0Y_ADO\5WT3XG-W]>A>:.\7_K\+$H*&E?Z4&"BCC0E]XTK77[#7K[6X[Z=C; MDDD5,B7QM]''=471S5^%=TUZ\Y; AE40(J"?RM7T8PIY,_7D4+R'5/X"WGI MG>W"+7>O77)Q6LU^CM)\(E&>]YNYP%!.O>;9=&3@#<97%?!C\S/3"$.Z!2H M\QAH8(8GJM/4H"[C8D?8NW ANX1.@%6E;2KDXJ#8*G!%G>L.9J/&6Z.[*;23]OOL.,%_>@ MQ88XT"6HK%7 Z.K6[_LM;LM#NU]F7]HM;OM;NU7KW,;.[;K4ZS:@!RLT!K5:L]>N?1K"A_56Z^KRO"EEZVE(;@KW M\CO3<,=O5AJJ;,:'EGHG\6;B\IQ@[=8#UX,713/J?- \WF>O7UN,/?CL,L) "6 ME),,ME>2KV)<6WG[P])\D(],?R>TI5_ "3UH7TB8.G]NO;2YBG;/OOX^V4$F M_D;=3'M[Y]^"}3 !"^^KHJJ/+*S&/)#!/21(&?3,.(UF.]#Y5R+ 6&3X[-&NB M0H0*$5XN(E22?3^2O;((*BY4+!>BSM<5%ZJX4&5?G"P-3V5GA5)PA08;H,$/ MRV%P^U],K["APH87CPV5=*]LC-?+BDXV8.CZP7X2"(+3>$S#8C617==H\O%= MJTGD;4- &\6#54H3L*M0K>]M1J1PZ&5I@K\5)ITD)EWP]+LOE'Y7(5.%3+L@-M^^V26UE<$QYA4P5.A6"3!5KJK'I@)P&ZOQ*HP|_Q.WD@<]X;2L9S8@*W>[JX,% 8 "#XA? G"QK;>8&Q6^H?C+2WU# X M91HK7C>TI$0U;K\NV/=KVY;.W7Y+,,;9:RV.:CG/J%?8?\KNS&%J_V6BF<\0* M(2]$!"B0H@*(5XA0F0H1+WZ.H5HO:IS M68TD<_CF>!? J5^1(P)F/*)^AUM MGHGVMOE.9IJEV++GS0?6/&JP5S1.BT9F"H-&)08*?I_^\$>]U6')0 9%[VYER MI+F584TLA7,48BC$/SXN\$G3'*FJ?E25ZYX]H$/&+30JM O@G]JA7S>[[NSB\ MJQO<5QNMEMH:I$^&\5<$4:G9%9I5:%:A685F%9I5:/9J M,A-1KAK&RKV(-?! MZ6F05;I%INL A_C4<(I/9+Z8$@Y?VR;_HO7N0)U^3K] I-#*A>7K5]=0BO6K M8RC%^M4QE&+]ZAA*L7Y5H[J)RGIA.W/;P5GVY_;6Z<'M=V\[589P.3*$FU6& M<.4R*_BH&2H>&=[#@MIZ:ECKH M-M7FX'22/"H:/!'O>!8-;E?^? EP:O&0C+Z2\,$4&4P$_V0[O&HN=&5<1Y<1X M9GKM+^;82_08! XJ;JRH\5#4V#M!:EPE$8?CL3_S3=B-CE,SQO.#!3#51<-4 M,+Y;4>4KI,IRZJEO,\DR(T/LA9%EEK!4I$F4F3@^>)I M<@>MDW&3T4>_7'WGY>_4>*K*X ML2%:6'1]HYRQBHT=D<(VEM5++[8/L_:7+714,(E+QM J]:Q2SRTJ=*E0I<* M74X 72]M:0I:4X:;?ANMJ3 3L)P:TRL,>:()B".#:C@S2 G;J2IAS^'-0Z#* MVU80 RV]65EE %<)TL=>I0)/!9X*/(<#SROT]0;S !4:"+A-8E/]W=O.]\EM M,E:Y3;_4:&JG34A,G]M4SFFX.XJEZ]7!J,^SSS4ROMTS\!$D,PI8CI>R@=\U@641NJ!TUG(#!OIDFEL>P:0[J)3-L7F<(MZOX *8@GT4\C=1+@"2@21YIFN=>-93++Wf;A=7VA&1173P;5+3TRQ0WAXW. M+\;41N0^=7%##BNL';_6++MU0LA)N$@JS'VYF#O8%G-/R@U18?!)8W"F)Z)3 M/RP*G[(IH%5Z=\|+1-],I,T(BQYJ2#O7;5N-0R:.%C")/3K^/#F+/39,/:^E MO6Y$^YN/?R3_A//8-[;KUPZ$SV/E?I,]YOYZ^%U$Z0F;D1N317)K;]>VN'FG M7+*) 2B.1&%/%&_*E(R;O*G#^'P1P)A'9BH3G#KRB%:=,15>X@@L-IYOGT!R M&F>_-)^^0&Q;'G2?]#AASE"A#TO2#- *PX]K#@TPHI# M-W'K*4|&0&J&[BX&/WM3@$>6NB<$!(# (FW*5C;GP;A/'GA'CU^9S$Q@C.3S8 M'-,*K =%USQ65A#B++&5&0!_FI"?['ATFX.:<|1/-)++<)]L$(P.QI4N.C!O* M>ISR3]]B2]NN*LUZLZW00CAY*HLHZDV.#WG?5J5WN+!G=?6)\O? 5'J$&H)D(=CHP6K7ZO!?0_S8K;7]&=',Y2"8#\0O++W/MCW MFLOT2[&U;=U=K8;,ZO12?%W\.'+"C9\AGD8F=%%K,BT0NBTR@=;=1D_MUAM+ MT.&OZ]G*7#0Q(F<),.IV=DWM)9SHJH)0[9V03FHNS&.8+ A*?K<9IUWA>I[$L M(HC3#\73FKM@_.\5'(YCD31;J431:.L1-%MJ.U>><G80[!EOVX['F.9-K9%EC- YL&74DO+B3I9"VA$*Z7'$ MNP!-7 .,?I=P#@",I; NJN1"^>9^?, XPW.C<$/%@L=K$2WNPVEUBW5"R.WQ?4G" 0:,QS'&_#/=>/R(>U;XM?PZ_)!^BMV0 M3Y G&OW8IJF-D+62#.HA_C39_<2"MX[Q"+(,^ Q^.M8,'9*)P3GL>1P^-Q1G'4703_]Y?8WB"@,N/CK0,R#M8 9O4R(+?5<]/)0IML M>?/Q)M-WQ45\[\+=%?(KXI585Y\($:HI7P3&(Y9?HL_5GI/R$5" \A;O)D=S M_8\[/ !K^J+QV1VU93@^W.#"/L!@=P=P&E^^?"CZ^!%[+?S^=Z.9'B?(R*7*.MV\1SY.HJ:IJNCW?"KI^FQCCR+'+N2K)+7X1W@ ZO&9,+460B MK)? (?:"FH"8P&Z':CYHO]/R@6XS\F6$)U>&'A3H-WH?^2E=F?RQ#5A7OPM]/ MV'BP'X7R1F 5_GSBV*@G:@LZ]&R;I5GOI-7\DA1O]OZX0#.!.7/-\1;?0*"3 ME2(W%>QIK7URS?? V8_X)W%;+=[:MI=&IU15Z?;FB2A7*:8=@-%A6SI7[G(# M**U>K6 W=&^!&[^S&T+Z=)DN)=[T)7<"=Y=+++@ 46P>L!P'SY)HYXEGXN1$ MGA*3[PC3E;>@^^J8JL2#*.F8>O9.#;TEF@)7 W;F!GK;,+R"@8Y6N!F|^5?& MT&5_P1P/7E*^]2/8K?=3X-A3V]3W=P@S_G .\3'?0L!#<_^*)S=Q)ED K&\G M^(#B3C':)NFB2/5,V MBW.M<37LZ,L/53F,8<)99QUE-RWVLAR9*H"_2K/ . ^B.EL[[,\NX,&X]7^# M1G@!Z&W/F'/U/#9]3'?!6F_X3[_7GE>:5PU$-Y[9D^WH+K.BQU5K<8]-DK))T5<5#NNF\5X@_>;++|- _MPRDQ(FO ML=SNV-SCWM-&/^8!%4K -9*]17X+X.IO?]P-W%GXS.5E0%@IX9NH)DC- (A M%F K\+KH"(V9=\BKB"9=5"\-^)-T>,,.O..ETFR^:""(^)CX+S3=\NH7^.F!+ M//(!;Z$B=>I\5[0CT$2 5V"X\& ?Z$9 ZC6NL2BZ9CAHPO(G^FZHE<.-L(EM MZZ'^ B\)^E:&97BIS8V1C]MM]YL? NOO++&$B&32XH=ZPC)LA&A)C9\0OG?@A M? _(8FV3\SYO;SY_NO(!)FDYMA/L:^3WV-.HG+[^=N/ MKYE/RZ:79(E,_(F9B3@B\3]ZP2@32/M@Z?=ID,]X,_Q\53O_?C7\5VWXZ?[J M^Z^@ZCY!"U<6-'"OL%@,>|\4T;-4.6*V17!7_JU.? ^"^)4^F^,K-^Y5'|_ME M^M'Q#+HB#^[^YN*+8?I2 ES!TA1C1]^+X_[%6>&;F&*)S:?M M[9%$ X"L<.(L<4ID?(T/H]CGN?.Q?M9=5@SAX$WIW@,P8;:U$)\24O OY? $%YGF SJO9TL1PW"!(*2568%P+ ML7,6<]^1 0\'R0"3#7P>'+\TY5U_/ :=6)DPE&ER'IJX:@!^R..4PA#DU0-@ MRL)@I@XT!"_(0,,&.T&\D"%AAYI=@\'SY*@0^OUYH)@?QCT=V<=:,5>/Z^M;>| MD?(U=OS- V+-1QUL1'0\L^'2]SJ;F[NN@9BJUPG@\!>R)!ZYGQ6>4E"%!2,R+UZ'^8HRRKDNW>1@OI'E3)8# MPT9-A4Q^P$;)G_),5F.=\'4LI?UD+OZ@#3E#\1ZA]1Z\9JH#[Y@8D2M) M&@ZFD2M;]E0/9!^,(FD463H 2+)$7E8?*9],>@;3ZA%Z5;`<L!L^,8)FR(4S!R9" E*2.2&I1_)X)+)A]<:EB7 M_!\V\(7F/8DUKLROV@(V1\YN3X'Y9V_)`C^^2?E\.XZU%;@9G!@Z0_\O.G MZXO@UH33$0#M3X Q86V8"V\]FBF9- D<*4IJA&LGW((1]P!\BR/#]MAX:E%B MRS'3GH\4*2TERI+/1F2N1Z*C,.L!,"Q,N]'<**H87MQG"$XD[.-9W7+G*.H M4@4!]U6H%%7YR4I!=*5XKDC80%*!QV=0G&V)_C!42B$-&K3K#9Y,+C<6!(4I M;9_RE5+=4VACP7\SU#NPWM&QG^$5,'%A;2W1WQMGK8Y0YIG%1NDAZE+Z@*1* MHAFRH("H L\;GD5,5D0Y"!*N7(*J?F&_6+WA4SJ7FPS_S8$>+7KOJ"H-,T_I MXVN.1QR*?+3AD>?&,/9_0-E9 M&X(LGW*R RTGD^+3/#TG&W#OKP=R-4JF?(J M^;YE(>$A!W94IED)? F%*T?'.@V^M2K#9PC8/&2?8.6NK"9QU?IHYN%PSNRT:M_2%2W6Z<.^8\&F-^GTR/'UIZ1 PB@;$+5]D3(8I/C)!;B>'U&LBQAVCVB])BO[C=DH$;H-U9B<;I?A#^':FF M,;?)Z6D/A=L%(ETHQ8M07/507OOBGYH%N&$E751E\U&4Z1CSJ(0%>22"RM1& MEZ1\8[5;0N:Q2_:MROPH-:N +.ZIX+B0DC*UPD!$+5.;,]\#PQ-8]\>0%016 MH7 UK+$!+WBV#,_]D(NQ0+5PQB*W>,Y]%:I()-T_[:GEPK/_6YO-/P2_O8V#20*$3'Z2/*CY*@DIB%_'4A0E+@"Z/]IH M(S_!Y6!SPYX!*C R=O;A5]$^7X9%V]-P-U:? M)%JI$:4QFN;#)A I_ M5.NIW!*B.MR/?I9O&[V-$fNM/#L9&WX?KYV3NF;JB" .\,6.')6_$AMX\D M5&S6YD40W0D;_P(PFQKU@UTLH.WQ2O2+F3 '=!JAP0@S;?`\P,C7 M+^D$@- '09P #Y)*L2!:DE=HH*6\?L..21&J66GY7V.8$D^9,W3_!',$;T!@T M=]>H_E$HZ@C0:O57U(/"2$M=E4X26!L(TK+4@9VB%ICJ?1F:\ZF&^3JE<'FD M[3LX;_LU.%FO3%8;M&8R*5P_5&-2Q[T&&B!=X*H(#@CWI+#FN'\QVGA=*!!I MJ"^09FNN5^]DG]CGHZA=*S8 U:>;'HN(5IN^/ MM;GAX;_(82*/W?:7H/I,&D01M[!<9]0\BI<,CSY3?]2=,4XKWL#0R78-!4SU>*@E8 MY"R4$;/8Q!C+HM'(GEWIK-%MEF_=J?;(1*;%$Y(YSWQP;!.[9 ,1"]F'JA7I<-M".]@^$B"R)P&0&*Y]@';THCE8!_<2N B=H=4D65;WKQ]\^]4TS,P$'FZ#V*.MMQ0.8C#!MN*)!S5MVC^D^C5&#OS,(=EC&\T8]I4ID(#K%KP,2'D054>0%FQ M_F_8YH#F,Y06"&KVC,4I8&I$8 ?W3DS@VY-,.PD/_ F\GKYB+%\<:0!K\U M=U^;8TRI>;251H9PCEL#.K:&(N=1FLS,;[PKE:O)">\A 25B#]=+;S)-2CPCE MR3LLZTJ1RHE$I92K1(E+B&=ALER8/Q6I6UNNIG.OD!%K;G?=^+)SI$IX=IS<.M \G,0'Q2,QR9:K6<)+,:J'4XP_'D T25UJF1>AL#PO2<&3$OY> 04$X"HE[4^AK)7]Q7=L81P6 M:0(RDAFBN=.\99J->GJ9YE+O)+OQE.F^R6XF5\3UOV(>$;8B7?Z4L3!S9J5- MDN++#N77L,4@:%YTXR&#.>R6CM%N|DAQ;R:1-JA;UG4VSEHKG%YRN'.I65DN ML1?ORWQMK8M 16HQ_P1A[O$.>-D#$MK]%AVS5]7VAL*37[<9:]V(5$6]QE]G M@T&;SVL8]):'F BW02C% A\U_/P@$ /K; &6$K4BAIB4$H%Q@'.TX)\@47S. M>#3:+8?6?,C6WN2YN+ MF@!&Y^E]#H-RG[@8DAJ_%< 4Q0]'G/M:FAPP'_&@"A]^;C MWYNX(&%T.^!9MD!7].Y!%,9\0P2$7#GN.TYY.JY))^7[:R=JK9C?SG"I/+PL34WBI4 %Y)(]:Z9ID^_,6QJ0YP0HWXG3Z(#P?6#]BD(.[*0,', ML001OP-OO4VCTF"?W"H%%/0TJTD? FPW23,,Y<6R=JZ.@R&*9N"6'F:UQ M3S7Z8AAGED>JD>..=HYK>NNO:=757.G:+3Z&L4,9ALBE05]V7#A1%F!Q4 1/ MYEB0Q;^"D2*XB(_B=@6SV(Y49F#O'!T,@D.-TQ6^O8.#? VY=@ Y?(.@9&ME$;_>A'L_1:WWM@Z M:?>LMYQY16H,)(E>@!Q5.\M9J9O7.Z2?2 KYC,GJUP0C"'"$SA<_+../GUTR M=^P8A#MBCJV\XF82 34=&B@G]@4!X@[AD- !ZTJF"!>)B.\5$@K=5Z3CW1K,#>;+;7=70[Q;<'V M*FFP6A](_#% QPEGZ4DC9GAWD1GGZ'&Q 7"T'_S/W Z#K ^E/"0CZ. GUGO!FP(3X7!K_ W# NS1T/T8#A M1$[^5N:V2Z%>>NHFDX_YOD8X-%!" BZ?! QVZ'DTVRD)5!PSH5KH(>_PB@I,A4=A<^$D2D> 5P$9FG/C<.0E)@-X)BVXAJX@!;B8P9E+MCB MJ#5ZB++W>)H0DM/(F/C.F. <&42X1K_CCO[N1,Q N/BHJA1M!4\KY;(L%)QJG M9)>|,D;546?"D$@:,\!PK6<1D$PJMA^D#08H$FE!$_-E2+!]H)UQ1,<(+O34-F MD&[/1U:A7BR,/M),6MB= NB/$ X]WL7(4D+]%RD\TR5K=,^7'"05TA^(B(# MC=GUW,^.]E2>K-'HI;=MHE$7*%T"'%BXC-^P\[MF (43^H>47@P*]2 =JM4J#]7V+,?+1$Y\(UFQP;!./8\[_Q& M2L.FE/YG+%N#&TQCDD%8:?1L_5"\A/+S]3_LWB+'[%ZN*-@.7FS4P0L0@R M7G)$<3N=P)*A,"YO28D;6^U9S=>0X>7SAMPMF4F5WK#/_(;M]#=;7$49XQ@L M#'V)0FAK!4XOA_*)B'@GS4PCV7"'"N;[\/N(#V1RTMVK(K+#(-HJ5\6W?8B$M MS>SE#W3/%]%O1 >X\(,_%>&T$3JSP4*!]B21^7SN:38?IAR*[T5N[*N=5ZC MTS\.[.[QH,L N9Q5QPA(F7<8BH$DIW>S4PW=%;F&N_;KJ1+&-TH8W\)95R9F MO+YM0"OB-A'!$LQ&SX@T5VFPK?:,K_=3M4H V*C*A;-T$7YY;(.M\YMW5TQ MEV,OT$GRL"O.*H!S"4V@/6SMD&NIG4%C1+IU,AIA5L],&:8]+4A4CJ5#9Z=U;]#R)P;%^OP9F9DWLO4%_-$]O(TW3. MT/EN"'"I R)81K;GV;/M]Y%\ (=R&7G@_(P'#9O<7F6Q>|^PY?#M_5D@X*",3 M&'"P)7^KU=|CPOCRMW#VQ^]O)0H J'Z+IYT$E4V_O??T*A7U@T4L6V^00&I MZ"'"SR#0T(Y#4*)];3 CC1=2%&.RU3*P0:RCL,)Q^,,"?E?D+QW@+ _U5,-|3 M_VCL#$$IJ$]#&^L87LXW+QUN2.-$^7X0!&'/0K'_6%-A=VO';N3X1[E5I8X M5:A>H?]+0O4 LY7O3+8=JI"\0O(7A>21]$ -/5GCRL4+9QQ6]5ZC^HE]Y.;=_MUNY?&.?',QQ=L>V'&]^;_;?-P:#KO*;Z\]7'!!@R >+15T3 MG2D:S3]^W=O&N]_>PUTE\]25C/QSI#? V>F\^UEOOZ_WW&*P(8SPE8LVA/^T$ MP=L/P-M+!6\BZO!+<9!P?3\M[+ MZV#B[UD)PO-<18X4XVDX,T$ M5N>MG+&NT+9VR 8MM60LBVNBTR&OQ.MT39PIFFZR1= Q=1M? 1+/R111B+/?;_ME2]BG^#M5+Z(TOHB^MW*%W$D=*B3'K9A8>^UXI!^FIK01=2P/^YQLA!.I"_ M1TW-9.N%).2KIC>"HZY=7&7A"'"XC_<5]J+-%2XL"!F=[;3*ZW?O#//GO- M[9VQ'K&#W:I&@48F.YL88-"HOT3[!VZR\1*7U&@:E9>H4N&*QIH%JG(MD00\JJNHW2BMJO:*L+YR%.W%@:;*UXL8O97C47C6F$,'6'#G?6]HJ'OLYQ=&.@? UC.0GG1(4(Y^]L=^?H5[%>Z=/,Z= MH,KP_]G[TN:VC651[^]7H#1)C5O%TERU.!E5R9;=^$Z\7%M)ZGZ.L&FB!@$ M&"R2.+_^G;6[T0!!$]2XRDC-)"'"I?OTV= <5PR5/5AEVXB(Z,JWB4-Q&WW5Z M2T$KP\BJ6W)6D473B7;6W?5B#>^_Z4$)@P?^NW6RK26>'46 8BNO E11;^O/ M;&YWP:%^;?#/KG+W<#ENU]-3Q&\)*YWG N2]89^.?? 6QS"5]L=H/U4X5^%'7AUZ=>C5H3_+0_^>M0Y(';1NV1FL/8NCBY.NVV;]W>Y.]MISF(.1MYD;H4,RJFSV>]U'$E@HR6QOE MRDGRG2J9&NE4%'6]'7_GAWI1FC MJ=W#L%.O=U[K=EM[3LOHE A7'HK1M/-8U&YXY$7:]W9E;^R]8<,QOJH(9)F2 MYOGL]%F_JCJKXWE5=5;\'ZKJK([G5?L\]T-1*[]W7WQ1;*POJ5]L7]6O?A6^&X1?*

*A9.$8H"7$B^:*6/| MG!0/)4B?}AX7)Z+XBQV+KS'F9GX6(2[9OA.Z,+7>+EVWVCZYNI@I6/WQ_'*$ MGPMBS\G@/B@G8'GGWN7)57=/-5<5OAP8OI0M4ZG0HT*/"CV|HJ4R_],3/E@!*

*M'7IUZ-6A5X?^+_^]*EDZ M,_-HTR5+GN(L&:YD16/!(!H% (?B1_?A;;O MN)$3|\]-JV 9UH(MP&ZG%FVC+ZR!$&,QL,+ &MGPZOL@!DRO60,WF@212\O! M);K^O8ABS&ZS)L&#"*

($GQR,+=C$13HQWX*BD0W?X#*=8#P,D*0#YYLU$M[MZD^+UD[/AG$\|3@%?% M<)2X(G@AW@E+27S7#]>P6L[@U>7 P3M'\|O7!W"|*NO*D5A'"U^H0P!F"0*

*MW4VO=)PP$8/T9J39M/KLB8_VU/DE6^2,,27^X,/@>_PAW5G_M?K3GS?P@H#:.G>_U!0=M@[<8DX$-"L52^B'3G^1K#*9UA_/C#!A+!52P!K//3T*AHH=<*

*=HEH[:'6S6+VI4AAMGQ&X=PO,@CLE<(;Z&(3'E/(D MSW^*,D3?L*Y9%5@1X>/%^@7L0A^G/DO@($R8^J!Q3GOZ^RS/>0"V6F9P\'G[MY.J'MI'DE[YK,65V#G 8_1:UBXM:NX*

*Z;TH^@! !YGET.D9'Z1@BBL*HP,S) MX1E*L@^N,[*%-V,+11LQAFQB6O68%19-B.G8.4.FE!)Z6F&P9E4!(O9!>8T@ MN!=A634@O^)RAH5T+AR%=7'>VR(+R)H6&4X*

]"QO\$!X0ZMV4< ;&F:-8 %3 M"!>;A$EM*59T]H#Q8D'ATO&4B?E/4S@-@"32"E7_^Y=WMEX5EH,K\UFS^_M>"('?D'G^,=@H?2]4_XW1WB>]?F7C!]_6%YL.4.6.2C\E+YM$?

*6WF*_IA;V$ ME>D=&\|\R?X}!TZL/GZU'_>UE]_>7O#[_KUN]NW7UY9MO=@3R/E[T3VZXL,@'X" MVD=OZRNKC6Y#F=#PCR;!4Y3K(\Z>5EX-+_>%!\-^B$WM+ ^#F])8OHIO>*U-*

*2D..]V)YW&;_K1Y5_DG&6;&F8)Y6)B2P6-?Z M9^X8_EDRO%&OGH-4-\M=-X\"LPL PUS@$;4N]%&/I2'YF[BS@0.'@2,$1C92 MZ+EE(OAGO>ER:,49?)7H*C>_/YO+EZLO!<*

UWFH.!/GEGD_(4CVPPS% 1]5QQCWIN OHB M::(V'#Z(0]?VX!'V (U>88GA$%U/\"!4H(>NCZY9.%+@@ .7G@BV(N@TB1>3 M+AI,1$AO DW^71B,K1B 26XD^&_--

&A1!XR2_E_2L+41HDQ23$&O7,1 ^_VU M4OJFW4$Y(\@^DB$E853W GZG>A!2A,23R+7!Y,"=$T?,3^FL]&B+$)>/SVR9HGQ MQ NF8Y43L1+X_" B-#-

*"$B>?/3M.T'7P+,1@CAS6,%K1KYKEAO1,C1*FE9 M]MU=":N*!2O>;N-C^QO@EXV;O7?1I4 &MPW'9/=:=.*LIO%> GALCB/JP)+RR M3X8U'9!YY0A4]K[JUF#'&@W:JKFXR>0+Y'E*

,J!:1(.PI\>-[40ECB/@:\ MPE#\G;@A;W7(_C> IEYGA L"!=H5#_BB& [-!JOA[\2&8PKEWNT!4@!;,&#U M>'2^\&P7-N_0>GQQ!]8.GR!RHAB4;V*V8,HFGCS[P3T88W@U(P8 MDNNS?*

*HSPPV\!FY%?_]%MNOC<,"_ ,@VY! FGAW"]B,XB=]28G CIB.FFL2? M -/Q,"WPAGYF*QN'#4\@>GZG>M[MR^\' BX'1GB+AM9L 1<52P!K\V;A<2+GHE\Q0T>PV:UN"537!U5.S4 M:*W@U'B;&*

*<@E+4O<#F>O=';!7#]"_XHV5Z?=628 MF[*]!6@\&%7)TH3?CT)-M74]*TI:1I4V&X 0-1R$CN=F7*2G#OUW!(P]ZX,0,0F H46$-@H\,K5IQW);*

MV4OUMLHH$"T6M2TI\$L?!D$]$N$]&NUHMT>)XX"BA;(M*#2H%CZV-> ^,5SO= M5L'IRLR9KRXV0"$?) ZT)- E#\[N%PQP$.V"EV@C\D6H+ZRX$ @2D3;2>5@K^')6I0Q?*

&AJPO71C;&2FD6J9^]K"\.%72$C M-Y -F"TBH.L%>1=/(Z#4@# UI.L0;)&=|^G.S8&J4>?F*-^2N(H!MX%"/TQ MX1>N1V"]V@5 %38lF\ ^]4D0PR=_ !NM7+8Z&X .KYU--#@/+'P&=*

L_Z2YM=L M#O"MUGGMLMV;P]<2C1Y^MFF%)\)M,[9GQX$P F6GX8L1]X5BP8Y M\@LRY[6S3VO-+HJ/IE.QNS@-K4@REQ0<[8SJ9C)!>8 +>.&-<-BY)_UJG(13 M=D)!X=,>%,&X?

35K10-8[-C%PA>#@IB<)!4R8,@NX M:,J,$UY 4/*NEBZR,Q;>,.'3\/_3UW2K/2IW()DMAPH;3E6C-<@EP3,=I69C6 M=L>4XX$F6__]C (/Y1S?@:2,%XR#@GUGCO(O=B;<\G

*WK]T=@8;V$G9*%79 M^%ID9>T! F&^C'<%# _"I(H,G MK@_$_Q'P?V!\A8O13YR$4_I9'FVD M:S0$V&/6(-*3.43Q.&$SINQ(#UF M47P!'O- 11A0A;Z9MH6)*X2 MC6QW22NB'-*

,6#TQ0XA4_AZ(A7I 02(U![!8 MZ00186)/V<"=]NQ>+.B+A& C@ESZ%9)L!$ED- J54NL ^\(!D,=6Y@=B219;B M"RGE)OU2F%OQB2!,'CPS5LC'3J!23X'5#=I@Z4K#>\V%0690(WL<|*

<@D M>W.Z-$BY.#)?E(HA$LOX/PILLT!&=$443U3D^[_LD0M[#RG=4#\4V1RO?_$[MSVHRUAK-VRAG^'+|0 0'Y0[A39Cl/D);7V?=YQ>E4NXY=Y]#7ZAO) X11SD4 MW'K-

*S/=;D=BM*A(/M2+QL!FRYPY%JB!A_HQ[=9M5H\M'&/K M)..EOSC/N)K1^:?%J +:#L..3]!Y,9B\Z2Y[M8=P^!'L^C(L%A%]FSIP&N:!> M,+5*F\][TCFV?*

*>CZH1EE\$OK=Y<5[SV%CEE@M0.QW (DKTEK9L2]E44YME8NT!+G4LPO3=Z*W,>G]*^3AER(MNY".R;6=;O=1@OGDRA,X!C%(4! 6QY@--A'\]H;S"!HG=4L>?PD*4=F$ABO4S*

MEP&S;4/!:,009(-F_3F:V(|'^S+,;$!7!I;=I4R1A$]QEV69)]\[@DY'9-3 M:HJ-53Q.9_YPF^552VIB2V_-$39K]G,FG_&[ ]IQP72;>4VZEVYNU6|L3WY@ MNT3C|.5'4C1L=WZZ2=*

{4=QO<88;=6K(YV2#F2%%PA!/%P]7];YV"YYU]Q 2,6{BK!EX;2"=9K7_;1DB!?-HO\QK5LX-%K8MDS? M"RT4AW$]FM@A32R2A+V#DX0*<_ {0R(*R<$TA>-9I= JEX &2_[,4A=G@

7KP M?.G(J%C 0I5^%>_ :%Z0S'&]_5]=WD(/;.WX_:M/VW/K";O><^+7*EG MC?9.X% W$>-$\:[!BOMU7&HPM=A4!#L!-\|XYER23GXSMV3E%8Y>NP>_&*

M%VA2KND+0&;X3Q?X_SH'Y/\;H7/K8L]@NI9?A8TK/MFN9K&!H8N=BQT/OMS[MJW8Q7!.5D(,;7AL9ZE6YWPYUPP%'ZK!S$[F=1D$IU];#V:+"V$FF52#MPBJV09CVD^;+;

*MHJDT-[J?S ::<5$/TQ72H)ZPV%43 M1+;XJC*I4QOE$(MS(+%(:%Y;S6?0T'4'![XL!>FY(';1/G\X%BQ?T-4X.]C^ MLPBWC>O*9RM=MDI_) 5]|9$)C>9%A?*

*S[>U5W;_A>,MT_]Q8>NA2G-8>9L//-MC(9#.YLWBCV5%^'3AERN[W1+G4LPO3=Z*W,>G]*^3AER(MNY".R;6=;O=1@OGDRA,X!C%(4! 6QY@--A'\]H;S"!HG=4L>?PD*4=F$ABO4S*

MEP&S;4/!:,009(-F_3F:V(|'^S+,;$!7!I;=I4R1A$]QEV69)]\[@DY'9-3 M:HJ-53Q.9_YPF^552VIB2V_-$39K]G,FG_&[ ]IQP72;>4VZEVYNU6|L3WY@ MNT3C|.5'4C1L=WZZ2=*

{4=QO<88;=6K(YV2#F2%%PA!/%P]7];YV"YYU]Q 2,6{BK!EX;2"=9K7_;1DB!?-HO\QK5LX-%K8MDS? M"RT4AW$]FM@A32R2A+V#DX0*<_ {0R(*R<$TA>-9I= JEX &2_[,4A=G@

7KP M?.G(J%C 0I5^%>_ :%Z0S'&]_5]=WD(/;.WX_:M/VW/K";O><^+7*EG MC?9.X% W$>-$\:[!BOMU7&HPM=A4!#L!-\|XYER23GXSMV3E%8Y>NP>_&*

M%VA2KND+0&;X3Q?X_SH'Y/\;H7/K8L]@NI9?A8TK/MFN9K&!H8N=BQT/OMS[MJW8Q7!.5D(,;7AL9ZE6YWPYUPP%'ZK!S$[F=1D$IU];#V:+"V$FF52#MPBJV09CVD^;+;

*MHJDT-[J?S ::<5$/TQ72H)ZPV%43 M1+;XJC*I4QOE$(MS(+%(:%Y;S6?0T'4'![XL!>FY(';1/G\X%BQ?T-4X.]C^ MLPBWC>O*9RM=MDI_) 5]|9$)C>9%A?*

*S[>U5W;_A>,MT_]Q8>NA2G-8>9L//-MC(9#.YLWBCV5%^'3AERN[W1+G4LPO3=Z*W,>G]*^3AER(MNY".R;6=;O=1@OGDRA,X!C%(4! 6QY@--A'\]H;S"!HG=4L>?PD*4=F$ABO4S*

MEP&S;4/!:,009(-F_3F:V(|'^S+,;$!7!I;=I4R1A$]QEV69)]\[@DY'9-3 M:HJ-53Q.9_YPF^552VIB2V_-$39K]G,FG_&[ ]IQP72;>4VZEVYNU6|L3WY@ MNT3C|.5'4C1L=WZZ2=*

{4=QO<88;=6K(YV2#F2%%PA!/%P]7];YV"YYU]Q 2,6{BK!EX;2"=9K7_;1DB!?-HO\QK5LX-%K8MDS? M"RT4AW$]FM@A32R2A+V#DX0*<_ {0R(*R<$TA>-9I= JEX &2_[,4A=G@

7KP M?.G(J%C 0I5^%>_ :%Z0S'&]_5]=WD(/;.WX_:M/VW/K";O><^+7*EG MC?9.X% W$>-$\:[!BOMU7&HPM=A4!#L!-\|XYER23GXSMV3E%8Y>NP>_&*

M%VA2KND+0&;X3Q?X_SH'Y/\;H7/K8L]@NI9?A8TK/MFN9K&!H8N=BQT/OMS[MJW8Q7!.5D(,;7AL9ZE6YWPYUPP%'ZK!S$[F=1D$IU];#V:+"V$FF52#MPBJV09CVD^;+;

*MHJDT-[J?S ::<5$/TQ72H)ZPV%43 MI

N"\O%TX%34'IB'-I.?!]4+%9!PXI&&.YW;F;OUP" ME1:6CBS4-?OJ;70KW)N5_'$Z% *-#$?@9?M& MP<,"<$K41-ECSA&;CZJ1!MZ AEJF,&*+BN$DQ[@'@P;+%;JXZGA%$V:FDG%V?KYAES MS_=0V&5)QKUTG/.?B#[#PY)C.=.Z)8)WE] MX7EZ(E?9TU)B&8X<,)7M8!\L"<1!PE/ \B3D/H,8:*M9V*:>U'I,S1WPR7 M.!]$UCH"Q9"R.M5W]@YF$>W&9M\3J)]N8QCL(V*CKK$A=65P,<#81WF<91 MU&A,YU:M"M$5,] 4K>6@9#1LB,V!8(,3S-AI5>D348<^.^"$;4 XNSL(] M ^4^6(C4=9*O@6^&B3=$3)K/GI3UQ[<0Z3&]&"VA2].R1U22D.=SQ9TM7M0 MIX';,,9)1T!F5"7)#*Y-p_I2 1+-V+T8&%ZCA] Ye%;"BW2YE>GM8P.9]:M=%11*=ZT:>M3)WY>E+)$]\X#\SH/7*C75IT'GGWG=U*Y>L5N71)QSWYV25' MUGJ4P;32WJISV!4*$^F^H\IOPUM8Y/-$46>.890AXZQST+ 1:>),UA\(@FR< M2,G"X]PD"-Q(^1?4#8.G;2XC&D(]5U[Y_O$3>S^<$3I$V#LI+2B7,E33Z) M@9]D1P%.X9FFB\3>YR:L^&GR79&8<>&FI\++$%SH1K*3-^A7OC#ROM]\^N/] M3;UU;10=I6V9]I"Q)W@C7:IGC>]%!"L\-?@-1M"X%BX"$/Y0X0(.A!]%%*M.M:0X4\W(B$}Z$>A XMTB>P/0I1,+9)6OT8,)>GN?YK>;,./M2(3Z7KI@TD&\;CYTCCB0F#RTN!(>]P9,,2;.U5XNA4D#%ZM"G#C-'9:4/,.^% ME0H(-24D=;AGC:L"'^/;SNU#_).9<>\;R=4>K5V-ZDPN/X"!50B/4!]X00D M.'1'B5+'. 52B)*OE$0E0&/8L3+(*<*G43I<1C1$N"5H!)$#Z4)=I%(.(M: MU\F82 9Q2*\1NA6#R66.F8W%H-A0GD7,)U4J1#JR&A$<%TE6;\2)*?/=LY+1 MPW9X_#CR:?*O&RA><;?2J/1A)L+%R'1= LQR?I1"K$O2W,P0&Q72N$/%.@BG ML_UZV[=$FJQ*2X^13G#"/KD#S2QGM0@9@@N1>I;.)W%]8/$J-F@>?&[Q?MFG-N"_3GX46!O!=!+*?PDAR.I*>MV,7(2[Q.7P#X4_5?P25#R.!,_^V6T4]R-#=2>V<>6&]Y&-J"+Z'-M^#E>#!M-'U26&QEAW8I&RVL@ZKB8-/]$?59&$VE$*>-2I+@H(S6',<0@&'-)-MHHNCH^&>G-B?A5W@P/0I1,+9)6OT8,]>E:FA!++#R#U=R>&(]5FV\L+BRD=QDDE,MOH7&G6$DD16,4:IKT:.LP'&2$"41Q0_U1?,]T:S'*.!X$,@SZ?1;WF$Z-]!0-M=O17.@)%L;W45M"?OUB-,M0[*VK9.K7*6A4-L8^E9Y€H*E,WR0?/2K=)H39M3"01I^XT,T_P6/M"A0AT%VS#52,#JBJ],S1=`PWK3XFUH>!9\-)GDN9>PM/C-M!\0^%0.>W0=G[E&V3N%;=, 4#$T5(4UC$!3A:ITF?A\TMS1#5XW10T'Y@L@EMO45EPDZMTX&<O6OD<[+=#27M!B4!&8AX)4)6T,Q1");*:]3%+]2NU6YY_]&W4P!0I1,+9)6OT8,)>GN?IZ_^L9€IE6EAQ5]IU&Z M:L\=?B4:>%%\!=I!M#(,)\<%;]&22SRBTST2RF_]#AU823@)(J&;.@.'Y/Z8 M^/@'F?RA.G?Z.'@AF_$'4:]Y3FQW8!.ISBY4>.C0F/.B0*8&P,\/E$4F!G4; M:R_<@2DG6]Q)[5B>M99$&/K,/EHE.5+NJA;E\[+4D)-+LH%9/VCHB4>,7VBY MK3#/Z-9$RL?;3V#I-42C9O50/+:.I*=`!+WAU.G6 5PDHJJYNR5A7:'7D'8VT MCD0OC8^(3]W &9QWJ\XBG^&);_36-A M60YHIV21+UD5;'SI89QVD]NXHA&JF'"K>ON 37EQY,C&&X7#;E4X(__Z6 M-<_X@C2E+'4&&:R085VCOY5QCG)V.'?"3'D;V0/6VA'A:[)24N:C12-8C0R/ M.(8NH-T#1H8YK)1/)9G+15,7I4FN@9A0O8,R"6*_:.=10\Z#C1BD^ M'(WB666=S\LZOZRRSK^;K/.]]NX!Z\OHVH-ZVWO?09YX:S_NRV?WO&2]HG^KM^!]W2R,@QPAD61PI'6$BSC3%F>J"LMFBXK1J^+S;K%FR:M@\/UDXW+!4!2"(.M"57\ERY!"YB7IS)-\ 4G]>NH^A!)'T,\O.")/:4\'ZKLQV1D^J24?C4^@USOM,JBCPWWX0A2=E'WC2#,)Q&H0VN$TTQPG%[<'61BC&3CC[#03WD&USE4K%KJ^ M<*G4&QQT&>Q'@I $MN53UR(!)*PYDLYE"2."K<]G.N&UNV4=>1YR",&!31%50^%F8S]D5F7!&?8+> M218#7)4HPCUI4..;Z%!RMH8BFZ7&];,)E)Z!A2OKB3Y29D>SN8>4/)M9>,@1'/[&XJXCK'-.WJ924G$UY%231DN<|=%D6^9O1 *FY3](@ZE./DXN^M[7 M*=KD$,E2DV([>?-UJ?^;G3&4XV!4+RE_1X9#]VX2$]G^2D(W(BM)8K^..S-1 M""1$1F=]J:+MS)EOK)R:Z9%4NKVYV"%9*>247,S-7*7 \)%D<[,+&0<*LF% MK I$4K\0%IDR,Z.8R&B:1O.3;@8(9-LML@8W?[* MST?4599LC7PY]L"UX4&2,=&<.)6TNWW2(E$;*X;!6=s$6I$*P3K4BA-10]P M2_^8 #P#F$&%N4B9;.]C;LKX9SI<#PSE3*N5FDIC@;, ^H"+52K)R0 M L!9Q%RU?:WF]^ +?0P9S3[%.,S'0UN>]>]-]XIDMW6@2AL!F5"_P7.3,C* M)1/3#+.T QKB3H8IY50@U?YTH0K4T,_%UM-.Z/:I?0K>&HH1YF#=" ^F!'U)# MAH?TP58T(B>,?F]-#?%@1XA.)=*+EF1,48BT=4*:Q1D#)R31REH.=VI [HA; MQ8]:66,?.RM+4EN-#)5(9>;9=(MZ*W,8;+,(1%QG\5Y"\5Y'2#X%M;E> M)Y/:.DCU3ZJVLSEQA@L'@)? (<22\+E=H2X4A!+\R#QS:X(3H -:2B 9I8: M'O*0LWT4J/N.+CK%E:,-Z/FIV=@AR"! &0H29;]FK6H[@2B$9ER\D!AO > O-M5;M+O74$$(4U0A&B+/ V-F]&G-49GN8V.{)9VKF$4GN8;(.K;.RAM$7]%M@ M&.=\Q^5XZ^:C/:5E\ _]fT_#8?VU3%]Y2LDKUT9V^&%TC=X%N+$=;4 HQD7_ M5)PPK&?S>C*E"?M?\XY0Y NKX89_\G.8^$]%>S%^7ZPY*L0UD<0;E8K3> S MS-MW6L'[FOJXY%0&?"/K\/T@T,9-IE^X"=2?W:L&NWT/KTG$1G!*.[^:0?6 MT>)1?G>W-+T#9=%7]H'Z@/F*D?66.DC\#PX.[#1K-$"1Y9O11/[5!FGXZ\>$E]5%@U6?;XG$M43+& MKF[_5;]C%8&E$L]+ F0?,[*+ FYFI:X3DLI3K)$] F0?,[*+ F37>ZQ"7ES0 WPB.M+:VG>/HL6QD4!;/^%F\MCIHOCCPOV&F>CV?HI#EYG#<>QUC6K\+&Q>N%S4:1 MP[O^:;O7@_.1_WKQDY4;1P,0B>-@G,:#T\$UZVXE#Y,E,WNV_1J :19+_.OD M;'D.P0:649!(P4A79TC#99-'BW0*.A^@'OS?B_6& BU=S7+R40#(4H^6*3W-U14/#)F-\5<5RGT0B[8I$5B(1U*,.C1HJQ#D. MQ.E4B%,A3L5Q*L3Y?CE.7G%;K*4UNZ"@=2[VIZ6I5.U>^\>=2F_V++\[<00M M.F#E"_EQ79?L&RZJ.I MD*%X1>>>7G5[SVZZ0H4(&0(9VL]9K=2IDJ)#AV*I5.V^:?U2[/#TU0K*.:'8 #M,5_JV&-RP^[WHGV5>-^/E5O&U@$AQ61?M5GO/#.8P3V_.YH[C3MKMUEJM\^KX M#^&-%?D?TFE\%^1_<5%K=WH'=OQ)YN#;GQ;UIF264Z5>[M5G7^A_#&O3B]>]W+VL79H3FQ#14+ M_M3)M_W9@$?7E[SWI+1RS8P?[<\CURV,\^DDY=]?"T=@C,0#DZ)I6KFI>GM MW*"59"X\%]D.$CWR\ ':]>&8$^Q?22VWL0FH9WD.&/J96XZ[!/X./B*f\'3A:4 N)D[X5.'C8%LX2?!V=6FI2O4ZD65#V2NTIW#L;!%M3Z5 M+8GN KW!S-B'Q64$W]6Y;Q8B*Y_ZR UC(?S"DYTY__RVEAS]'B=#[+-"6'N9%56CX.ETR7R"=#D&TE%[.,%K4D6#Y(;EOCP#\;2E=KNI M7ENU'M]AZ_&=^.,CV.])O>6QR?,+.0AXP-SU 'ME1G'(_3WN;O2495$4'9@>5 M51Y-X-I9X!;KTO.4Z*>Y!L'TDF*^/\T\K]5MG/VXFB:<413.FFOHTD5*>:.O6 M:78VKI9GJGI+O1QGU ;U5<07XR">)7-2R%5]X.*+RZT!&[R3XU;3GUK\DQ[5MDYEB1Z8P#B^A'N^>=*UE'G#6Y >DHT]RJ\2+VFV^*!@.L;5]?ZK5"6JY:W3) MQ5%&/B*=OIO_^T.'K"GI5N6%14E(W=&RZ\'+*D-Z5:U^!>K?L%X_2_"M\\;%MC^MHXTBDG5KG\FQ==3Y#[NW:Q071^?;HE_^[-=>ULFS@?"X;,)>>>VG0,-3[S/)?)IGY?L) %>E%&T3!O MG>/VE6:&U^&L480#%VTG[*Q4C=RT5=1-=I!9&BM<%?N[- MY0%>NA>M.H55X9 .QLARD/GA5/FF;..RE=X^QT\"A-@E7K;JTXH4(/F,=JU] MV5S]F6LX3H!/> 50-> .?=KDP:X;)=)N2/&8-IH=EW(JV]<<33.KNQ"DOAR M4[$OUX5N>V)W+)8NZ1+X";(33ZD6VN=76R8YKJU3K>U^C.7)D+L@MS.+IO; M(c=>JWOPY+.;V"N[23Z1/B8G@)TJS\B+&KPI/@#_R#$:2#.)8IM,AJ(YGU]) MID.3Z.'Y(N:,"MLW9XJQK"&)\+D+[8>(F(\L]4YWIY_PV0@FM9P/K*!HX)HLH]$>[CCVIN,[/I.QZ)F._?;.Fl2>V!BV DP-4VEY- MN@Q6H1@M;H^(;/8>B2B+4B!OJ+=10M0&^=^7[2KPGQOV M079%/H4P9?UT6Q+9 M9$=H.?>>>Q)"DVTP_K[5;B<&ME,F:9TB^@M4V367M^;-6MY'G,"WB<-+2.0#6 M=& AO1D*6"RK":%+HYM"5+"I>D!#?$-';34O-Y_(MB[.IZGY3Y7)*)()5R]F MYQJ;-V-KT51T@Q.9RG,(:OS[O,.D>7'H?SFP@D.\ QIEH<|<5$A_2*B(D= MI?\|HP$GZTE?><^Z9,7Z1T]+5=%2$*\VGTA-8D=8<.QI90R]XR'],<+Q>FM*&M&=8TW15^2(0.=:F1K6/"8,^9K%-0%O%:4611"567B=A@$4J44W.O,6'P2KA M0\0C7]V\)#"(QL-J_3O[CHEGF(2DD\)E2F.-/"D))KK&I-^++'C#WQY87(%PR MN=Z]["0(U3!6*G' V9(U"AQ:/QOEKW &H F8?4!C[8TAN;*U?&;A#/R@3G> MJEE2G9\$KB^+A>YPEFV Z>H3'$4H.4:4'G(>EHV).MLY!AKT)Z"V&[$ MG#;I\^H&&TQ/YR[D]H>DFM. +;=*+,/F>C@"YY"2A-0(V&>|(8DAP#AW4R> M78](#IR&/_G6!T+R"R7X,P=(,B&*$BIR !%Z%R(9X^:!*H')W@@BCDSI_.<M@2H]3\GSX&.]+#1_M+X*WP6L^2HT:L]V5$0:^8%+Z/"O(M',9X0)A/K@0U0X0C?Z#'R M(%!AN?1=+]\1^<=I^H7";=L'$?^W0OEN7';2D 8?'K$F9*\Y>KI;+9#X!88)YMN:%!Z;_.^*2XK<<=C,7!Q$(;$X7>#-RQ=!Z^PBK),.\:3@$8@YE B^_0XT5?QW08-:A=>.& !O@ M735CBC9NZ!V&Y=W(":Q;7$]_ 8\ 7KQ@%'@#?AC.TL51J;[5^W$>RPB2.(IM M3G<& 7",&E<<.-]IUBFR3SP;8 -31E<)Z\\:GAK.C,&WNLT3CY(%SA+EP1I M9$X0YENPO AX]AST.8=U'#;>2H(P>(A9)MH(@I3PJOZ1KB8J FAPKH)&GB$\X M.1U.3X0X8U5,P7T_,1/12CHQL#$')%0.Q^>V!IX]?S7DPF(&HXL50S_24I; M'K__)*"3IP: U3,K-.YR.2D;JV Y82VU@%QYRI2CG2G2ECCRQIS2E[.\$ M-!\1>C2"G+0_R8UG! DH'BSU+WY$PX>ZR=C15?Y93^ M(@$M\)1F?X'@^(#7 MH'YQ XM5W%#);Z'>A8@N>)="NQQ^ 8X!#X7BSO"!TJD&6'S*<}(=(+TJN]&/50W]&5:[,%Q9P=4I,Y0SC+)H[3#)N!<M3H, :RWJ#9Z6=9W1H'(*-?WP%7](V:(=LUK":K)D:JR_+5!5S>?B-_(&K:+; M,0VICMTQL7VT(JD@S3!G9O6\RXAU@YZ!(E?:(GTT(N_0EE?D54-= M2QM2I#Y1TQ?\ WW-JV#%X.!N_26Y4 :I@5%PKIPHS@:_0:<9B'YL8*TLSM!N MN=1A)_WL^.3,JL@.34@3FVG8<1J]X-M(7^NCTPCM3"HH!7P:XZ1ZZI.@$L=L M+RTO,>M$/.V7#7'?H3&P'+B+) ^PHEF.6(_SQ(#PP04Y,8+S+2(<&B*)5]&VP M-M(@)XNV-Z,>B0\&)V0Z!Os!8_MJ?D?J#V f8@X#H(0S\]N0_EAX%&'$^70UT9@##7AU!A=&Q0AH(!BP9=A0D'@#9"??4B#8K(0]4\2CE4\Z7:Q08OT/E M'4T+L"4-#/7+\ZX ;?2C\.Q)6OJ!=0=8"@Q" 85(@:C.4#>,-:-P\|"6)&K M(A06H-H":%.\6\)?T.P>X$0B@N8/)4A27GXP5'F-/")P1/&;@>.YFP_Y)" M())84E-8)C+VH@P>4KH5J0V;])B<+T)(Q9 /_^<5HM_*]\OV9$-WU8;fV' MV3.[UGV>.BWN'U7VP5*YM,-PBL@'FTY8#&A>9=V!KB5P\ 3_4<5*29A@XD%1H+2H7=%F4C&EMUF9'V82DSI\P6S=NKR-Q: M@\1*]#*4FRYY?C]T&A>;(!2@R^QC^!.E+,V$O R9-Y.S3,V%,"7@D0P6>/,/ MK93ZC#K>5:D(R"?WE*)8(1)YU+8W;= MNLL>#&>7/EAF .TJQ<_A2YR(V.BHQSS?9.3M:Y,&SDIWGG8 &"A5U TCMWPK MOYJ3JQTHHVF_3"""KE37"5+(:B3*S>1FF9] QW*<^Q7-3CWK9\J?2UA*Y$,$'(M)TO<#V9R)8OZAAUOCWU]ILC/%3FIDG1V?_==(\L3#,*8>UZ\| 94=]GB>, M,B'=C&1JTJAW&15-YS'0)QTYSH^VBH-)6N=>,%?BK#/)3.?*J,/K*]M_)?CD*Q?!?)_^ NU!.5^]C:,8ZF'4O,Z7-R1BX MB6YM]W^--9&X@2\\J?G&C1OOF1.,E-G1(Ø1Ø30K8P!A+ C35:O?K M;15G>?LHHQ>80TFY9-)I+^,Z)2O]2EF*(;LC%+>0VP3Q%R,,4%5-MU]Y]U>44I MUI#A@##49P\|%838G9+5J/I,I4OSP(LT9TB_F.4*W3E<81%3V,ABW\A%I5KH M #E!T6+6'IQSL*2>KW-YBQYP'7=*&:.5@=+G62CMM>1E%SSN4Q(:G]IFH3\O68)/@=#9WUD,AYPWZ\OJ#[QWD)Z*4XR[[*OGM)_@#|.>L?G,"X!C,AHE1AC)@?2N3%E7&SO+7U&0FC\G V:.X25IV1!FF43(&?*2X*M/A Z*=?"7G3=&A1E8T$8X[=%5*.M D#W[1LKI).0D>)QU+|>DP=-U3UD;'UKF%5;2A!SB '70%\4&U)M\=)6"M M81"\5G:-9#AI4GJ^?H(,W^3^F+?)VI5<<_P5D9,/^B-+,OAZ/?9[PW&=M\$JDLQ&TCR35<*EV1L>@Z-Y?3MS-$44Q\5E9@X'O3%%E%3:.G18&7H'#-A+I0MEHFJ_&55AJ2%'8IA/YC FZ?I%"\(KES_]Y[U0O(#>6\) ^NU<.PDTAF+ MKL(\3V,><37;\W*KCPCT635 K\"$M >]'J;F(ZDH5"7Z8:6>PU ->AG8RX$0P M?U3^>NI!#HI\AZA(##G-"961,IH-';^O"0;SA A?=.[!4NU#"UK M1"K1_B&P5)KV1 03Q'/X#)<9;9:1Z89$$AFLCE1/1HV^ &V\N.91@ZIF>U$@.M,U,QM@,FC95,,(-(A)CIFLE.91<9OH?$@SL*M($94HEI9*T"!<]0 M3S^ M4 T[8X8R"ZG,7954@5)XKTK[*P5D9,/^B-+,OAZ/?9[PW&=M\$JDLQ&TCR35<*EV1L>@Z-Y?3MS-$44Q\5E9@X'O3%%E%3:.G18&7H'#-A+I0MEHFJ_&55AJ2%'8IA/YC FZ?I%"\(KES_]Y[U0O(#>6\) ^NU<.PDTAF+ MKL(\3V,><37;\W*KCPCT635 K\"$M >]'J;F(ZDH5"7Z8:6>PU ->AG8RX$0P M?U3^>NI!#HI\AZA(##G-"961,IH-';^O"0;SA A?=.[!4NU#"UK M1"K1_B&P5)KV1 03Q'/X#)<9;9:1Z89$$AFLCE1/1HV^ &V\N.91@ZIF>U$@.M,U,QM@,FC95,,(-(A)CIFLE.91<9OH?$@SL*M(@$4

B?]!G82MW-M_^8;$IX).>^SQ*]0:7(@/+WL,,7>B,J!)QP'(>QT)-^JPE%&LU0J$&+"]_MU:,/>.'T_+T:Y4L35>-N#3A8.:%|\(]3;@17KJ]HD^7_P96KC\ZN4C$6;M@TPD[-T)%
(N>2G5U!5#@Q!?9G@A9@M[MJ$K^+@.6*AP!{.,?:AS!#6:,7)59<"^\#-F"NP]3^O),S9:>3H3;O5NC-D M7\5;KF+RLC#""1R='L^N,/O5!##?LDQ82PNXP,3F%EBG6^|>==O'WP.\OE;
(-M;\SP-F#G2!;L[P;IX#.K5< B#^_Y@H&[_C=6I1Q9Q4=\K3%9JJ!@@BLY69.)AG_"+X>+,>TV!:C M,SBEI%*_*!B1,%&1H9G"IN@)IB^,!2)*F2WHOU7_&1BH!J$%('CMU!PO%R(W;/?
^-VUP^.:K0!7*1DB&%"*_5MXP;\/A!/@2'1AG M!I8$B+ IF9-9AN1*!$O\/;"1U+!. ?D2[!LL22+G1$<38;-D3Q$T_"02'$N1-M2@+!ZH@R]T).fP>/GL"3WW_\%EKT;
M^\5@\0G1X(ONW7@-2]$O+#[=Z"'/:VG*DL];HP. 2Y%183[MH!(M%6&ODJX!R3V.JU]_@F%0%01Z*9"\T1>KI8C!)8TMQE,$ D\4M !1*A)?AA2-
M5%A2"3[WK9<4GJ0U"@N1L_WY,6 Y1]TK)*?:@LOR3JS4!O8HM0CT/<(LH(E5)\. F M7H0*P2/X6$CAYE2^=TU+P/51]0%;?L7L4B@E^5!5"\H+DR-@K)<;481,Y!WP M^K2|^Y.
(&WP#.0&23%![E]CPUSQ(O0^-CNB>Z(!EX7/,!HZ2!*'Z')KBHNT. MF:0LM7OP1OFX6SEY,&!'S'E;ZK.Q+MS-'NS#;'QI#20^D[N/$VR\0+4>W!5. MH#(#&ORIXQG?-
]O+K,J^Y71BK/2"?[,SK@?D.-&\CJ+"T,.N<>J.43-M';,3 M91^.9=!GQ3T%>W)#EP01@MFW95TY"M&EQUVZ1RLBJ5?3TNO4FZ7!8CRUB,* M8D]H?C\JLIGCD?
8CR.KDNV4??/86[4+13TWUS0X7S[!IX<)?O2US+UA1"S'=-M.OY7+$,(/ :7O--2]GC5T60-^ 0V:9< [@%AX?:RRQ[#X6Z)\?Y EF-M"=*F)5K&3Y)OB]2&3X5 !WT:%\I_B6"?
CPV'#'!KI2(6WFO[""8-*9,A* MD*OJ]E*^SX!_I$)<:B-?BKV]_>*B^%O&!<*>WR,+Z#B'F,'2TL>?A&T%=:
M$+I,@-Y_[>AXXBLAISA29G7W5A"9W4PN.KL+9I*%Q^%Z,2 DU MUCFJ,1&?U"3$Y=O7]#.(3KL5'H6]Y]UNK]U^AC:CTV)28/T^.P%#@^ZPR4?[M9TRYCA?SNU?
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(Q6JWUY=O5844T%D*G:,3L\OX9U_ MN)+)F/;IZO?V2:?3;AJ8BUNOA -=O\./6R[P.W'D:KB&7Z[C,@4L]9W_0+EAF M)ATH!1%)6+SNPN%=D4K'9PG-840?8)HFA%="!S(2AHPONF
R#]9A,>Y 4(@\ M%5I@A4P=C,K.GCG;V-TSZ#P%4<90#N^)8(3++E<@QXZD*ZF3F'U%5J{#%4CH) M$00&NTH? 9[WAZLEFS,)#=NPW/]\[]:S_1%G_+_ ="^#M:R)XYO"0S_/_^3L?
M7Y9C@-6GXLD!\.I?W5Q-?#\[_$(K?3V:TW\L$?OY3Q?Q*-U8%;8V8,#)@-.M!V5$5J-EUKY)+-X,O//QQ!^>?W-8MF"L45;?&*%^&!R27(87W!5&T%:]A2K-42$@C M.%^3D
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M%9EDB#'A(0Q7^$A]*XHLGB0LSQ5_^%6:&-6%)1448=G-O0)KFSJ"4X,;(GZ" M9\ 0JQS1,.!\@&\$K$,-_N3@ FL%,H6G+9KG1K4] 2,D89]IE]&NIE0)+8N^-MRZC1*.$TU\>KF*
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GHBVVU(^"P3>"F/L_7+6=3S>E6OW=]HOVGCK<=\(+0YYJO-3Y"9+NOI/"E MB?C2]O$RB(,EHQ$R&[*<9/<4QE'$\-6TYPTO(^5N^%/L;+V3W$,0DSWO:M3?S
Ml8EW.=3/ID/O%W5)V9F=7%[XTSW9,M)%^O"I4&U7F%R,;F^>O*$&ZOW5 Z.H MJY1.7MFYYR_P34$L#!!0 (/]!#5FT*(-L,00 & . - 97A?-
C:2V:PL6$^BO[\KF+,E>N4[:NYD,#$:KU;X\NWHLM9@-,2/E)*(=+8A%1*3N4TD]R6*N@1=S23E]2QK29!ESVN$Q+OI.U_N" M$DE]B#E4RG:S;)NV!5;+JK4]=9C<@:X_LIV@G
HB8W%@=!U#1_0 9MQ#N"EGK(.0LL,Y$.Y(* 1"Q. M'1MTMQ=$NPO5(Z1+QEM*P&>=P>K)9[5"17;L-OE>;==3KHGG_'__D4 M[!\D@F<.3_D\39Q_\O&Z'#TL.!6?)-D?3-
V;X4V_Y]Z,1S"YG\[N>R,7W/&Q MC/^7:*P&W!LSHV_;-#/([[-,/T36+IS:!W-9ZX@ZMO#LL6C*99A_$0W \# MF/6FE[W18*,/?]D=_`]OJME;--\ ZWZ>Y9*%]R?.
[WABK9XP8OPQ.02Y)+" MQXPHV@K7,*5)+"3$ 5RMB<\\N%%8M\ M9#GGBD>'& NREOX124ODJA!*^T"YCU3,)N 3270Y#\/0ZVC5E.7M) 7-6G;C MPCJ0/G.T2ET#YG>TD/K%
[%!1=<4VK;K5.%;K3;O2M*M:]\>,4ZB8)2RC76V7 MR09HDD+ <.T^Z1E%5F22(<:;$^S!8X3N%+RBR>!2Q-%4 X5=I8A04EE10A.4P M!P*L,>H(3@DFR+SPLP%3\I3&O
0>O@^P"B5(D($SK!3(&/8;-$V-8G,"OD?\ M.%&OHD-5I: <ZA-ZH,L8SV5B.#*:RP:K$BV\0E$ 5(2$+3TC7TO+Q4JF%,.$_R)=$;.N#Q$^.ZH*TW MV,-GUCFXB,6F58,LQ+IU#505]RB@$9)!JD!*-
TUO5Y;;7/4"L+rB\+$B3I+X42Z M+<.&38RO"+4D\Y#"/!8^%1W-Q',=#O/:&5(!>7L",%"QSL M6%\NE1'S!W4TPR.AGAD%_E%/?^MNJU552E<(.6YMZ7[&JU%76BJYUKKX,XBV
M5FO6;*W;RQ;84KB?]E2[#0F?>0+'\KA<'\^BG):+>AW^/J?9?^MV6_\CGI^K M?:GQ$>)Z/*O7)>"]V\-Q)_TEHP$,=QMQ' 0,7T@OO.$%)-\#7VO#^>P1O)"D M:4>[[
=45,VRHL D-2DF0DZ 2"(PY10)"""3**(H(& @]*\(SB!!R5DD#(@#P!S,@W\ZYYUSWWEWW;5,NL;KGVUW5W5J5 MH!:KBO*9.@$GJ6 4 #0KP" @4598\ ;B<,J6
K M %68J18 !(#\\4G5P1GV=7"PG=-^W)>P_TP"_RIX-[3Z$_'H29IY_HJ4^[PMT M?]!6/C8 Y#P\0(TOV"-_G_5KY&%&YI\C"ON]/=C_,:*\W\O\,:*_YL]!'CZ
M]2\%MD!5__K]GVF^3UF^WY#C_]JO^O8_XS9KQC24QJ11W!9 GI4,[#U X"L M,SC.#G #$,H_GI8!^ =0O@.,VFX!KNZ VR7]7,HH$?0T]#0H&GHT6AZ%CI: M.A8.)GIZ)@YN-C8.-
C9N%OU]^?WC7PN%@8Z.@9&]F9&1F9V1D9&=VC&R_YK" M\|L\0'D+L-" #NC!((< * L$Q@*A? &=15":(!B0)0*R+/)@QT!XY HFC0 M#V

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2024-04-012024-06-30 0001213809 dyai:JanssenPharmaceuticalCompaniesMember 2024-01-012024-06-30 0001213809 dyai:JanssenPharmaceuticalCompaniesMember 2023-04-012023-06-30 0001213809 dyai:JanssenPharmaceuticalCompaniesMember 2023-01-012023-06-30 0001213809 dyai:AlphazymeMember 2020-12-01 0001213809 dyai:AlphazymeMember 2023-01-012023-12-31 0001213809 dyai:AlphazymeMember 2024-01-012024-03-31 0001213809 dyai:SeniorSecured2024NotesMemberus-gaap:RelatedPartyMember 2024-03-08 0001213809 srt:MaximumMemberdyai:SeniorSecured2024NotesMember 2024-03-08 0001213809 dyai:ConversionOfConvertibleNotesIntoCommonStockMember 2024-04-012024-06-30 0001213809 dyai:SeniorSecured2024NotesMemberus-gaap:RelatedPartyMember 2024-06-30 0001213809 dyai:SeniorSecured2024NotesMemberdyai:ThirdPartyMember 2024-06-30 0001213809 dyai:SeniorSecured2024NotesMember 2024-04-012024-06-30 0001213809 dyai:SeniorSecured2024NotesMember 2024-06-30 0001213809 dyai:TheFranciscoTrustMember 2024-01-012024-06-30 0001213809 dyai:TheFranciscoTrustMember 2024-06-30 0001213809 dyai:BradleyEmalfarbMemberdyai:IrrevocableTrustMember 2024-01-012024-06-30 0001213809 dyai:BradleyEmalfarbMemberdyai:IrrevocableTrustMember 2024-06-30 0001213809 dyai:BradleyEmalfarbMemberdyai:ConversionOfConvertibleNotesIntoCommonStockMemberdyai:IrrevocableTrustMember 2024-01-012024-06-30 0001213809 dyai:BradleyScottEmalfarbMemberdyai:IrrevocableTrustMember 2024-01-012024-06-30 0001213809 dyai:BradleyScottEmalfarbMemberdyai:IrrevocableTrustMember 2024-06-30 0001213809 dyai:DescendantTrustMember 2024-01-012024-06-30 0001213809 dyai:DescendantTrustMember 2024-06-30 0001213809 dyai:SeniorSecured2024NotesMemberdyai:ThirdPartyMember 2024-01-012024-06-30 0001213809 dyai:MrThomasEmalfarbMemberdyai:TheFranciscoTrustMember 2024-06-30 0001213809 dyai:ThomasEmalfarbScottEmalfarbAndMichaelEmalfarbMemberdyai:IrrevocableTrustMember 2024-06-30 0001213809 dyai:VTTTechnicalResearchCentreOfFinlandLtdMember 2024-01-31 0001213809 dyai:The2011PlanMember 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2024-04-112024-04-11 0001213809 srt:ExecutiveOfficerMember 2024-04-112024-04-11 0001213809 dyai:BoardOfDirectorsMember 2024-04-112024-04-11 0001213809 srt:ExecutiveOfficerMember 2024-01-012024-06-30 0001213809 srt:DirectorMember 2024-01-012024-06-30 0001213809 dyai:ConsultantOneMember 2024-01-012024-06-30 0001213809 dyai:ConsultantTwoMember 2024-01-012024-06-30 0001213809 dyai:EmployeeMember 2024-01-012024-06-30 0001213809 dyai:FormerBoardOfDirectorsMember 2024-01-012024-06-30 0001213809 dyai:FormerChairmanOfTheBoardOfDirectorsMember 2024-01-012024-06-30 0001213809 us-gaap:RestrictedStockUnitsRSUMember 2023-12-31 0001213809 us-gaap:RestrictedStockUnitsRSUMember 2024-01-012024-06-30 0001213809 us-gaap:RestrictedStockUnitsRSUMember 2024-06-30 0001213809 srt:ExecutiveOfficerMemberus-gaap:RestrictedStockUnitsRSUMember 2024-03-132024-03-14 0001213809 srt:DirectorMemberus-gaap:RestrictedStockUnitsRSUMember 2024-01-022024-01-02 0001213809 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INCfalse--12-31Q22024 0.00010.0001500000050000000000.0010.001100000000010000000041731141410645632947763928811061122535021225350211084362763301728118000159481471179255803-082027-03-080.082024-03-082027-03-080.082024-03-082027-03-080.082024-03-082027-03-080.0820000001600000425591557441202403-082027-03-0840000000400000010639838936022000186000P10YP1YP3YP1YP4YP1YP4YP1YP4YP1YP1Y2479661President and Chief Executive OfficerMark EmalfarbtrueJune 4, 2024directorJack KayetrueJune 6, 2024Vice President of Research and Business DevelopmentRonen TchelettrueJune 7, 2024Chief Financial OfficerPing Wang RawsontrueJune 12, 2024292367250000falsefalsefalse10-Qtrue2024-06-30false000-55264DE45-04867471044 North U.S. Highway One, Suite 201JupiterFL334775617438333Common Stock, par value $0.001 per shareDYAINASDAQYesYesNon-accelerated FilertruefalsefalseFalse2947763961333986515028396451774829028160100832498064661591267203277751050260180673351173461414391042510462106303728219236432521684332140-

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(“Dyadic”, “we”, “us”, “our”, or the “Company”) is a global biotechnology company based in Jupiter, Florida with operations in the United States and a satellite office in the Netherlands, and it utilizes several third-party consultants and research organizations to carry out the Company’s activities. Over the past two plus decades, the Company has developed a gene expression platform for producing commercial quantities of industrial enzymes and other proteins, and has previously licensed this technology to third parties, such as Abengoa Bioenergy SA, BASF SE, Codexis, Inc. and others, for use in industrial (non-pharmaceutical) applications. This technology is based on the Thermothelomyces heterothallica (formerly known as Myceliophthora thermophila) fungus, which the Company named C1.   Subsequent to the Company selling its industrial technology business to Danisco USA (“Danisco”), the industrial biosciences business of DuPont (NYSE: DD) (the “DuPont Transaction”) on December 31, 2015, the Company has been focused on building the C1-cell protein production platform for the development and production of biologic products including enzymes and other proteins for human and animal health. Some examples of human and animal vaccines and drugs which have the potential to be produced from C1-cells are protein antigens, ferritin nanoparticles, virus-like particles (“VLPs”), monoclonal antibodies (“mAbs”), Bi/Tri-specific antibodies, Fab antibody fragments, Fcfusion proteins, as well as other therapeutic enzymes and proteins. The Company is involved in multiple funded research collaborations with animal and human pharmaceutical companies which are designed to leverage its C1-cell protein production platform to develop innovative vaccines and drugs, biosimilars and/or biobetters.   The Company also developed the Dapibus™ thermophilic filamentous fungal based microbial protein production platform to enable the rapid development and large-scale manufacture of low-cost proteins, metabolites, and other biologic products for use in non-pharmaceutical applications, such as food, nutrition, and wellness.   Liquidity and Capital Resources   The Company expects to incur losses and have negative net cash flows from operating activities as it continues developing its microbial platforms and related products, and as it expands its pipelines and engages in further research and development activities for internal products as well as for its third-party collaborators and licensees. The success of the Company depends on its ability to develop its technologies and products to the point of regulatory approval and subsequent revenue generation or through the sublicensing of the Company’s technologies and products, and its ability to raise capital to finance these developmental efforts.   On March 8, 2024, the Company issued an aggregate principal amount of $6.0 million of its 8.0% Senior Secured Convertible Promissory Notes due March 8, 2027 (the “Convertible Notes”) in a private placement in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended (the “Securities Act”). The purchasers of the Convertible Notes include immediate family members and family trusts related to Mark Emalfarb, our President and Chief Executive Officer and a member of our Board of Directors, including The Francisco Trust, an existing holder of more than 5% of the Company’s outstanding common stock, (collectively, the “Purchasers”). The net proceeds from the sale of the Convertible Notes, after deducting offering expenses, is $5,824,000. The Company intends to use the net proceeds from the offering of the Convertible Notes for working capital and general corporate purposes.   The Convertible Notes are senior, secured obligations of Dyadic and its affiliates, and interest is payable quarterly in cash on the principal amount equal to 8% per annum. The Convertible Notes will mature on March 8, 2027 (the “Maturity Date”), unless earlier converted, repurchased, or redeemed in accordance with the terms of the Convertible Notes.   The Convertible Notes can be converted into shares of Dyadic’s Class A common stock (the “Common Stock”), at the option of the holders of the Convertible Notes (the “Noteholders”) at any time prior to the Maturity Date. The conversion price is $1.79 per share of the Common Stock, which is equal to 125% of the trailing 30-day VWAP of the Common Stock ending on the trading day immediately preceding the date of the securities purchase agreement. As of June 30, 2024, $400,000 of the Convertible Notes were converted into 223,463 shares of Common Stock. For more information regarding the Convertible Notes, including the covenants related thereto see Note 4 to the Consolidated Financial Statements.   This private placement funding will support our near-term revenue growth and accelerate our strategic objective of commercialization opportunities for pharmaceutical and non-pharmaceutical applications.   The Company expects its existing cash and cash equivalents and cash raised from the Convertible Notes, investments in debt securities, and operating cash flows will be sufficient to meet its operational, business, and other liquidity requirements for at least the next twelve (12) months from the date of issuance of the financial statements contained in this Quarterly Report. However, the Company has based this estimate on assumptions that may prove to be wrong, and its operating plan may change as a result of many factors currently unknown to it. In the event our financing needs are not able to be met by our existing cash, cash equivalents and investments, we would seek to raise additional capital through strategic financial opportunities that could include, but are not limited to, future public or private equity offerings, collaboration agreements, and/or other means. Any amounts raised may be used for the further development and commercialization of product candidates, and for other working capital purposes. There is no guarantee that any of these strategic or financing opportunities will be executed or realized on favorable terms, if at all, and some could be dilutive to existing shareholders.   Summary of Significant Accounting Policies   Basis of Presentation   The accompanying unaudited condensed consolidated financial statements, including the accounts of the Company and its wholly owned subsidiaries, have been prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) as found in the Accounting Standards Codification (“ASC”), Accounting Standards Update (“ASU”) of the Financial Accounting Standards Board (“FASB”) and applicable rules and regulations of the Securities and Exchange Commission (“SEC”) regarding interim financial reporting. Certain information and footnote disclosures normally included in consolidated financial statements have been condensed or omitted pursuant to such rules and regulations. All significant intra-entity transactions and balances have been eliminated in consolidation. The information included in this Quarterly Report should be read in conjunction with the audited consolidated financial statements and footnotes as of and for the year ended December 31, 2023, included in our Annual Report.   In the opinion of management, the accompanying unaudited interim consolidated financial statements reflect all adjustments, which are of a normal recurring nature, considered necessary for a fair presentation of all periods presented. The results of the Company’s operations for any interim periods are not necessarily indicative of the results of operations for any other interim period or for a full fiscal year.   The Company conducts business in one operating segment, which is identified by the Company based on how resources are allocated, and operating decisions are made. Management evaluates performance and allocates resources based on the Company as a whole.   Use of Estimates   The preparation of these consolidated financial statements in accordance with GAAP requires management to make estimates and judgments that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our consolidated financial statements and the reported amounts of revenues and expenses during the applicable period. Estimates inherent in the preparation of these consolidated financial statements include, but are not limited to, estimates related to revenue recognition, accrued expenses, stock-based compensation expense, and income taxes. The Company bases its estimates on historical experience and other market specific or other relevant assumptions it believes to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts, and experience. Actual results may differ from these estimates under different assumptions or conditions. Such differences could be material to the consolidated financial statements.   Concentrations and Credit Risk   The Company’s financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash and cash equivalents, investment securities, and accounts receivable. At times, the Company has cash, cash equivalents, and investment securities at financial institutions exceeding the Federal Depository Insurance Company (“FDIC”) and the Securities Investor Protection Corporation (“SIPC”) insured limit on domestic currency and the Netherlands’ FDIC counterpart for foreign currency. The Company currently deals with four reputable financial institutions and has not experienced any losses in those accounts. <p style="font-family:Times

New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> For the three months ended June 30, 2024 and 2023, the Company's revenue was generated from ten and eight customers, respectively. For the six months ended June 30, 2024 and 2023, the Company's revenue was generated from thirteen and eight customers, respectively. Significant customers are those that account for greater than 10% of the Company's revenues. For the three months ended June 30, 2024 and 2023, four and three significant customers accounted for $285,000 or 73.7% and $525,000 or 66.2% of research and development revenue, respectively. For the six months ended June 30, 2024 and 2023, five and three significant customers accounted for 506,000 or 70.3% and $1,152,000 or 66.7% of research and development revenue, respectively.   As of June 30, 2024 and December 31, 2023, accounts receivable was from six and thirteen customers, of which, three and two customers accounted for $191,000 or 76.3% and $1,150,000 or 45.2% of total accounts receivable, respectively. The loss of business from one or a combination of the Company's customers could adversely affect its operations.   The Company conducts operations in the Netherlands through its foreign subsidiary and generates a portion of its revenues from customers that are located outside of the United States. For the three months ended June 30, 2024 and 2023, the Company had four and two customers outside of the United States (i.e., European customers) that accounted for $106,000 or 27.5% and $98,000 or 12.4% of research and development revenue, respectively. For the six months ended June 30, 2024 and 2023, the Company had seven and two customers outside of the United States (i.e., European customers) that accounted for $304,000 or 42.2% and $187,000 or 10.8% of research and development revenue, respectively.   As of June 30, 2024 and December 31, 2023, the Company had three and six customers outside of the United States (i.e., European customers) that accounted for $108,000 or 43.3% and $213,000 or 45.6% of accounts receivable, respectively.   The Company uses several contract research organizations ("CROs") to conduct its research projects. For the three months ended June 30, 2024 and 2023, two and three CROs accounted for $598,000 or 96.5% and $1,586,000 or 99.4% of total research services we purchased, respectively. For the six months ended June 30, 2024 and 2023, two and three CROs accounted for $957,000 or 90.2% and $2,662,000 or 97.6% of total research services we purchased, respectively. As of June 30, 2024 and December 31, 2023, two and three CROs accounted for $195,000 or 35.9% and $620,000 or 94.4% of accounts payable, respectively. The loss of <em style="font: inherit;">one CRO or a combination of the Company's CROs could adversely affect its operations.</p> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; margin: 0pt; text-indent: 36pt; text-align: justify;"> </p><p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; margin: 0pt 0pt 0pt 18pt; font-family: "Times New Roman", font-size: 10pt;"><i></i></p><p style="margin: 0pt 0pt 0pt 18pt; font-family: "Times New Roman", font-size: 10pt;"><i>Cash and Cash Equivalents</i></p> <p style="margin: 0pt 0pt 0pt 18pt; font-family: "Times New Roman", font-size: 10pt;"> </p> <p style="font-family: "Times New Roman", font-size: 10pt; font-variant: normal; margin: 0pt; text-indent: 36pt; text-align: justify;">We treat highly liquid investments with original maturities of <em style="font: inherit;">three months or less when purchased as cash equivalents, including money market funds, which are unrestricted for withdrawal or use.</p> <p style="font-family:'Times New Roman';font-size:10pt;font-variant:normal;margin:0pt;"> </p><p style="font-family:'Times New Roman';font-size:10pt;font-variant:normal;margin:0pt;"></p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"><i></i></p><p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"><i>Investment Securities</i></p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">The Company's investment policy requires investment securities to be investment grade and held to maturity with the primary objective to maintain a high degree of liquidity while maximizing yield. The Company invests excess cash balances in short-term and long-term investment grade securities. Short-term investment securities mature within <em style="font: inherit;">twelve (<em style="font: inherit;">12) months or less, and long-term investment securities mature over <em style="font: inherit;">twelve (<em style="font: inherit;">12) months from the applicable reporting date. Management determines the appropriate classification of each investment at the time of purchase and reevaluates the classifications at each balance sheet date.</p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">The Company classifies its investments in debt securities as held-to-maturity. Held-to-maturity securities are those securities that the Company has the ability and intent to hold until maturity. Held-to-maturity securities are recorded at amortized cost, net of allowance for credit losses if applicable, and adjusted for the amortization or accretion of premiums or discounts. Premiums and discounts are amortized over the life of the related held-to-maturity security. When a debt security is purchased at a premium, both the face value of the debt and premium amount are reflected as investing outflow.</p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">When evaluating an investment for other-than-temporary impairment, the Company reviews factors such as the length of time and extent to which fair value has been below its cost basis, the financial condition of the issuer and any changes thereto, changes in market interest rates, and whether it is more likely than <em style="font: inherit;">not the Company will be required to sell the investment before recovery of the investment's cost basis. The Company measures expected credit losses on held to maturity debt securities on an individual security basis. The estimate of expected credit losses considers historical credit information from external sources. The impairment of the investment that is related to the credit loss, if any, is expensed in the period in which the event or change occurred. </p> <p style="font-family: 'Times New Roman', Times, serif; font-size: 10pt; margin: 0pt; text-align: left"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">The Company classifies its investments in money market funds as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets. As of <em style="font: inherit;"> June 30, 2024 and <em style="font: inherit;"> December 31, 2023, all of our money market funds were invested in U.S. Government money market funds, for which the risk of loss is minimal. </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">As of <em style="font: inherit;"> June 30, 2024, and <em style="font: inherit;"> December 31, 2023, the Company did <em style="font: inherit;">not have any investment securities classified as trading.</p> <p style="font-family: 'Times New Roman', Times, serif; font-size: 10pt; margin: 0pt; text-align: left"> </p><p style="font-family: 'Times New Roman', Times, serif; font-size: 10pt; margin: 0pt; text-align: left"></p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"><i></i></p><p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"><i>Accounts Receivable</i></p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">Accounts receivable consist of billed receivables currently due from customers and unbilled receivables. Unbilled receivables represent the excess of contract revenue (or amounts reimbursable under contracts) over billings to date. Such amounts become billable in accordance with the contract terms, which usually consider the passage of time, achievement of certain milestones or completion of the project.</p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">Accounts receivable are stated net of an allowance for credit losses, if deemed necessary based on the Company's evaluation of collectability and potential credit losses. Management assesses the collectability of its accounts receivable using the specific identification of account balances and considers the credit quality and financial condition of its significant customers, historical information regarding credit losses and the Company's evaluation of current and expected future economic conditions and changes in our customer collection trends. If necessary, an allowance for credit losses is recorded against accounts receivable such that the carrying value of accounts receivable reflects the net amount expected to be collected. Accounts receivable balances are written off against the allowance for credit losses when the potential for collectability is considered remote. Substantially all of our accounts receivable were current and include unbilled amounts that will be billed and collected over the next <em style="font: inherit;">twelve (<em style="font: inherit;">12) months. Management determined that no allowance for credit losses was required as of <em style="font: inherit;"> June 30, 2024, and <em style="font: inherit;"> December 31, 2023. </p> <p style="font-family: 'Times New Roman', Times, serif; font-size: 10pt; margin: 0pt; text-align: left"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">Accounts receivable consist of the following:</p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p> <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">June 30, 2024</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">December 31, 2023</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;">(Unaudited)</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;">(Audited)</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; width: 70%;"> <p style="font-family: Times New Roman; font-size: 10pt; font-variant: normal; margin: 0pt;">Billed receivable</p> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">188,084</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left:

0pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">410,617</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> <p style="font-family: Times New Roman; font-size: 10pt; font-variant: normal; margin: 0pt;">Unbilled receivable</p> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">61,722</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">55,542</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">249,806</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">466,159</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p><p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"></p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"><i></i></p><p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"><i>Accounts Payable</i></p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">Accounts payable consist of the following:</p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p> <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; 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font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;">(Unaudited)</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;">(Audited)</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; width: 70%;"> <p style="font-family: Times New Roman; font-size: 10pt; font-variant: normal; margin: 0pt;">Research and development expenses</p> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">204,354</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">575,436</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; 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font-size: 10pt; font-variant: normal; margin: 0pt;">Other</p> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">69,939</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">79,052</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); 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font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">656,445</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table> </div> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"><i></i></p><p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"><i>Accrued Expenses</i></p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;margin:0pt;text-indent:18pt;"> </p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;">Accrued expenses consist of the following:</p> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:justify;margin:0pt;text-indent:36pt;"> </p> <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; 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font-size: 10pt;"> <p style="font-family: Times New Roman; font-size: 10pt; font-variant: normal; margin: 0pt;">Employee wages and benefits</p> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">330,181</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">561,720</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; 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font-size: 10pt; padding: 0; margin: 0"> <p style="margin: 0pt; font-size: 10pt; font-family: "Times New Roman";">Legal expenses</p> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0">41,360</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0">210,004</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(255, 255, 255); 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font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">1,057,164</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table>   <p style="text-indent: 18pt; font-size:

10pt; font-family: "Times New Roman", Times, serif; margin: 0pt;">Deferred Financing Costs   Deferred financing costs represent costs incurred in connection with the issuance of debt instruments and equity financings. Deferred financing costs related to the issuance of debt are amortized over the term of the financing instrument using the effective interest method and are presented in the consolidated balance sheets as an offset against the related debt. Offering costs from equity financings are netted against the gross proceeds received from the equity financings. See Note 4 for the amortization amount.   Research and Development Costs   Research and development (“R&D”) costs are expensed as incurred. R&D costs are for the Company’s internally funded pharmaceutical programs and other governmental and commercial projects.   Research and development costs consist of personnel-related costs, facilities, research-related overhead, services from independent contract research organizations, and other external costs. Research and development costs, including related party, for the three and six months ended June 30, 2024 and 2023 were as follows: <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Three Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Six Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> (Unaudited) </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> (Unaudited) </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> (Unaudited) </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(204, 238, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 52%;"> Outside contracted services </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">395,188</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">748,139</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">783,434</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">1,391,186</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(255, 255, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Personnel related costs </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">106,889</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">147,414</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">213,216</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">299,608</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(204, 238, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Facilities, overhead and other </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">13,552</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">21,999</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">41,702</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">37,324</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(255, 255, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td></tr> </tbody></table> <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(255, 255, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"></td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">515,629</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">917,552</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">1,038,352</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">1,728,118</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-

left: 0pt;"> </td></tr> </tbody></table>   Foreign Currency Transaction Gain or Loss   The Company and its foreign subsidiary use the U.S. dollar as its functional currency, and initially measure the foreign currency denominated assets and liabilities at the transaction date. Monetary assets and liabilities are then re-measured at exchange rates in effect at the end of each period, and property and non-monetary assets and liabilities are carried at historical rates.   Fair Value Measurements   The Company applies fair value accounting for certain financial instruments that are recognized or disclosed at fair value in the financial statements. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement: <table border="0" cellpadding="0" cellspacing="0" style="font-size: 10pt; font-family: "Times New Roman", Times, serif; width: 100%;"><tbody><tr><td style="width: 3%; vertical-align: top;"> </td><td style="width: 3%; vertical-align: top;">•</td><td style="width: 94%; vertical-align: top;">Level 1 - Quoted prices in active markets for identical assets or liabilities.</td></tr> <tr><td style="width: 3%; vertical-align: top;"> </td><td style="width: 3%; vertical-align: top;">•</td><td style="width: 94%; vertical-align: top; text-align: justify;">Level 2 - Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.</td></tr> <tr><td style="width: 3%; vertical-align: top;"> </td><td style="width: 3%; vertical-align: top;">•</td><td style="width: 94%; vertical-align: top;">Level 3 - Inputs that are generally unobservable and typically reflect management's estimate of assumptions that market participants would use in pricing the asset or liability.</td></tr> </tbody></table>   The Company's financial instruments included cash and cash equivalents, investment in debt securities, accounts receivable, accounts payable and accrued expenses, accrued payroll and related liabilities, deferred research and development obligations, deposits, and the Company's 8% Senior Secured Convertible Promissory Notes (the "Convertible Notes"), due March 2027. The carrying amount of these financial instruments, except for investment in debt securities and Convertible Notes, approximates fair value due to the short-term maturities of these instruments. The Company's short-term and long-term investments in debt securities are recorded at amortized cost, and their estimated fair value amounts are provided by the third-party broker service for disclosure purposes. See Note 4 for additional information related to the Convertible Notes.   Income Taxes   For the six months ended June 30, 2024, there was no provision for income taxes or unrecognized tax benefits recorded. As of June 30, 2024 and December 31, 2023, deferred tax assets were $17.8 million and $16.4 million, respectively. Due to the Company's history of operating losses and the uncertainty regarding our ability to generate taxable income in the future, the Company has established a 100% valuation allowance against deferred tax assets as of June 30, 2024 and December 31, 2023. Stock-Based Compensation   We recognize all share-based payments to employees, consultants, and our Board of Directors (the "Board"), as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations based on the grant date fair values of such payments. Stock-based compensation expense recognized each period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur.   For performance-based awards, the Company recognizes related stock-based compensation expenses based upon its determination of the potential likelihood of achievement of the specified performance conditions at each reporting date.   Net Loss Per Share   Basic net loss per share is computed by dividing net loss available to common shareholders by the weighted average number of common stock shares outstanding during the reporting period. Diluted net loss per share adjusts the weighted average number of common stock shares outstanding for the potential dilution that could occur if common stock equivalents, such as stock options were exercised and converted into common stock, calculated by applying the treasury stock method.   For the three and six months ended June 30, 2024, a total of 5,948,147 shares of potentially dilutive securities, including 117,925 shares of unvested restrict stock units and options to purchase 5,830,222 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive. For the three and six months ended June 30, 2023, a total of 5,619,491 shares of potentially dilutive securities, including 163,044 shares of unvested restrict stock units and options to purchase 5,456,447 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive   Recent Accounting Pronouncements Not Adopted as of June 30, 2024   In December 2023, the FASB issued Accounting Standards Update 2023-09 – Income Taxes (Topic ASC 740) Income Taxes. The ASU improves the transparency of income tax disclosures by requiring (1) consistent categories and greater disaggregation of information in the rate reconciliation and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. The amendments in ASU 2023-09 will become effective for annual periods beginning January 1, 2025. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. We do not expect that this guidance will have a material impact on our financial position and results of operations.   In November 2023, the FASB issued Accounting Standards Update 2023-07 – Segment Reporting (Topic ASC 280) Improvements to Reportable Segment Disclosures. The ASU improves reportable segment disclosure requirements, primarily through enhanced disclosure about significant segment expenses. The enhancements under this update require disclosure of significant segment expenses that are regularly provided to the Chief Operating Decision Maker ("CODM") and included within each reported measure of segment profit or loss, require disclosure of other segment items by reportable segment and a description of the composition of other segment items, require annual disclosures under ASC 280 to be provided in interim periods, clarify use of more than one measure of segment profit or loss by the CODM, require that the title of the CODM be disclosed with an explanation of how the CODM uses the reported measures of segment profit or loss to make decisions, and require that entities with a single reportable segment provide all disclosures required by this update and required under ASC 280. ASU 2023-07 is effective for public business entities for fiscal years beginning January 1, 2024, and interim periods beginning January 1, 2025, with early adoption permitted. We do not expect that this guidance will have a material impact on our financial position and results of operations.   Liquidity and Capital Resources   The Company expects to incur losses and have negative net cash flows from operating activities as it continues developing its microbial platforms and related products, and as it expands its pipelines and engages in further research and development activities for internal products as well as for its third-party collaborators and licensees. The success of the Company depends on its ability to develop its technologies and products to the point of regulatory approval and subsequent revenue generation or through the sublicensing of the Company's technologies and products, and its ability to raise capital to finance these developmental efforts.   On March 8, 2024, the Company issued an aggregate principal amount of $6.0 million of its 8.0% Senior Secured Convertible Promissory Notes due March 8, 2027 (the "Convertible Notes") in a private placement in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended (the "Securities Act"). The purchasers of the Convertible Notes include immediate family members and family trusts related to Mark Emalfarb, our President and Chief Executive Officer and a member of our Board of Directors, including The Francisco Trust, an existing holder of more than 5% of the Company's outstanding common stock, (collectively, the "Purchasers"). The net proceeds from the sale of the Convertible Notes, after deducting offering expenses, is $5,824,000. The Company intends to use the net proceeds from the offering of the Convertible Notes for working capital and general corporate purposes.   The Convertible Notes are senior, secured obligations of Dyadic

and its affiliates, and interest is payable quarterly in cash on the principal amount equal to 8% per annum. The Convertible Notes will mature on March 8, 2027 (the "Maturity Date"), unless earlier converted, repurchased, or redeemed in accordance with the terms of the Convertible Notes.   The Convertible Notes can be converted into shares of Dyadic's Class A common stock (the "Common Stock"), at the option of the holders of the Convertible Notes (the "Noteholders") at any time prior to the Maturity Date. The conversion price is $1.79 per share of the Common Stock, which is equal to 125% of the trailing 30-day VWAP of the Common Stock ending on the trading day immediately preceding the date of the securities purchase agreement. As of June 30, 2024, $400,000 of the Convertible Notes were converted into 223,463 shares of Common Stock. For more information regarding the Convertible Notes, including the covenants related thereto see Note 4 to the Consolidated Financial Statements.   This private placement funding will support our near-term revenue growth and accelerate our strategic objective of commercialization opportunities for pharmaceutical and non-pharmaceutical applications.   The Company expects its existing cash and cash equivalents and cash raised from the Convertible Notes, investments in debt securities, and operating cash flows will be sufficient to meet its operational, business, and other liquidity requirements for at least the next twelve (12) months from the date of issuance of the financial statements contained in this Quarterly Report. However, the Company has based this estimate on assumptions that may prove to be wrong, and its operating plan may change as a result of many factors currently unknown to it. In the event our financing needs are not able to be met by our existing cash, cash equivalents and investments, we would seek to raise additional capital through strategic financial opportunities that could include, but are not limited to, future public or private equity offerings, collaboration agreements, and/or other means. Any amounts raised may be used for the further development and commercialization of product candidates, and for other working capital purposes. There is no guarantee that any of these strategic or financing opportunities will be executed or realized on favorable terms, if at all, and some could be dilutive to existing shareholders. 60000000.0858240000.081.791.254000000223.463 Basis of Presentation   The accompanying unaudited condensed consolidated financial statements, including the accounts of the Company and its wholly owned subsidiaries, have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") as found in the Accounting Standards Codification ("ASC"), Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB") and applicable rules and regulations of the Securities and Exchange Commission ("SEC") regarding interim financial reporting. Certain information and footnote disclosures normally included in consolidated financial statements have been condensed or omitted pursuant to such rules and regulations. All significant intra-entity transactions and balances have been eliminated in consolidation. The information included in this Quarterly Report should be read in conjunction with the audited consolidated financial statements and footnotes as of and for the year ended December 31, 2023, included in our Annual Report.   In the opinion of management, the accompanying unaudited interim consolidated financial statements reflect all adjustments, which are of a normal recurring nature, considered necessary for a fair presentation of all periods presented. The results of the Company's operations for any interim periods are not necessarily indicative of the results of operations for any other interim period or for a full fiscal year.   The Company conducts business in one operating segment, which is identified by the Company based on how resources are allocated, and operating decisions are made. Management evaluates performance and allocates resources based on the Company as a whole. Use of Estimates   The preparation of these consolidated financial statements in accordance with GAAP requires management to make estimates and judgments that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our consolidated financial statements and the reported amounts of revenues and expenses during the applicable period. Estimates inherent in the preparation of these consolidated financial statements include, but are not limited to, estimates related to revenue recognition, accrued expenses, stock-based compensation expense, and income taxes. The Company bases its estimates on historical experience and other market specific or other relevant assumptions it believes to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts, and experience. Actual results may differ from these estimates under different assumptions or conditions. Such differences could be material to the consolidated financial statements. Concentrations and Credit Risk   The Company's financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash and cash equivalents, investment securities, and accounts receivable. At times, the Company has cash, cash equivalents, and investment securities at financial institutions exceeding the Federal Depository Insurance Company ("FDIC") and the Securities Investor Protection Corporation ("SIPC") insured limit on domestic currency and the Netherlands' FDIC counterpart for foreign currency. The Company currently deals with four reputable financial institutions and has not experienced any losses in those accounts.   For the three months ended June 30, 2024 and 2023, the Company's revenue was generated from ten and eight customers, respectively. For the six months ended June 30, 2024 and 2023, the Company's revenue was generated from thirteen and eight customers, respectively. Significant customers are those that account for greater than 10% of the Company's revenues. For the three months ended June 30, 2024 and 2023, four and three significant customers accounted for $285,000 or 73.7% and $525,000 or 66.2% of research and development revenue, respectively. For the six months ended June 30, 2024 and 2023, five and three significant customers accounted for 506,000 or 70.3% and $1,152,000 or 66.7% of research and development revenue, respectively.   As of June 30, 2024 and December 31, 2023, accounts receivable was from six and thirteen customers, of which, three and two customers accounted for $191,000 or 76.3% and $1,150,000 or 45.2% of total accounts receivable, respectively. The loss of business from one or a combination of the Company's customers could adversely affect its operations.   The Company conducts operations in the Netherlands through its foreign subsidiary and generates a portion of its revenues from customers that are located outside of the United States. For the three months ended June 30, 2024 and 2023, the Company had four and two customers outside of the United States (i.e., European customers) that accounted for $106,000 or 27.5% and $98,000 or 12.4% of research and development revenue, respectively. For the six months ended June 30, 2024 and 2023, the Company had seven and two customers outside of the United States (i.e., European customers) that accounted for $304,000 or 42.2% and $187,000 or 10.8% of research and development revenue, respectively.   As of June 30, 2024 and December 31, 2023, the Company had three and six customers outside of the United States (i.e., European customers) that accounted for $108,000 or 43.3% and $213,000 or 45.6% of accounts receivable, respectively.   The Company uses several contract research organizations ("CROs") to conduct its research projects. For the three months ended June 30, 2024 and 2023, two and three CROs accounted for $598,000 or 96.5% and $1,586,000 or 99.4% of total research services we purchased, respectively. For the six months ended June 30, 2024 and 2023, two and three CROs accounted for $957,000 or 90.2% and $2,662,000 or 97.6% of total research services we purchased, respectively. As of June 30, 2024 and December 31, 2023, two and three CROs accounted for $195,000 or 35.9% and $620,000 or 94.4% of accounts payable, respectively. The loss of one CRO or a combination of the Company's CROs could adversely affect its operations. 1382850000.7375250000.6625350600000.70311520000.667133191000.76311500000.4524210600000.275980000.12423040000.42218700000.10831080000.43321 Cash and Cash Equivalents   We treat highly liquid investments with original maturities of three months or less when purchased as cash equivalents, including money market funds, which are unrestricted for withdrawal or use. Investment Securities   The Company's investment policy requires investment securities to be investment grade and held to maturity with the primary objective to maintain a high degree of liquidity while maximizing yield. The Company invests excess cash balances in short-term and long-term investment grade securities. Short-term investment securities mature within twelve (<em style="font:

inherit;">12) months or less, and long-term investment securities mature over twelve (12) months from the applicable reporting date. Management determines the appropriate classification of each investment at the time of purchase and reevaluates the classifications at each balance sheet date.   The Company classifies its investments in debt securities as held-to-maturity. Held-to-maturity securities are those securities that the Company has the ability and intent to hold until maturity. Held-to-maturity securities are recorded at amortized cost, net of allowance for credit losses if applicable, and adjusted for the amortization or accretion of premiums or discounts. Premiums and discounts are amortized over the life of the related held-to-maturity security. When a debt security is purchased at a premium, both the face value of the debt and premium amount are reflected as investing outflow.   When evaluating an investment for other-than-temporary impairment, the Company reviews factors such as the length of time and extent to which fair value has been below its cost basis, the financial condition of the issuer and any changes thereto, changes in market interest rates, and whether it is more likely than not the Company will be required to sell the investment before recovery of the investment's cost basis. The Company measures expected credit losses on held to maturity debt securities on an individual security basis. The estimate of expected credit losses considers historical credit information from external sources. The impairment of the investment that is related to the credit loss, if any, is expensed in the period in which the event or change occurred.   The Company classifies its investments in money market funds as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets. As of   June 30, 2024 and December 31, 2023, all of our money market funds were invested in U.S. Government money market funds, for which the risk of loss is minimal.   As of June 30, 2024, and December 31, 2023, the Company did not have any investment securities classified as trading. Accounts Receivable   Accounts receivable consist of billed receivables currently due from customers and unbilled receivables. Unbilled receivables represent the excess of contract revenue (or amounts reimbursable under contracts) over billings to date. Such amounts become billable in accordance with the contract terms, which usually consider the passage of time, achievement of certain milestones or completion of the project.   Accounts receivable are stated net of an allowance for credit losses, if deemed necessary based on the Company's evaluation of collectability and potential credit losses. Management assesses the collectability of its accounts receivable using the specific identification of account balances and considers the credit quality and financial condition of its significant customers, historical information regarding credit losses and the Company's evaluation of current and expected future economic conditions and changes in our customer collection trends. If necessary, an allowance for credit losses is recorded against accounts receivable such that the carrying value of accounts receivable reflects the net amount expected to be collected. Accounts receivable balances are written off against the allowance for credit losses when the potential for collectability is considered remote. Substantially all of our accounts receivable were current and include unbilled amounts that will be billed and collected over the next twelve (12) months. Management determined that no allowance for credit losses was required as of June 30, 2024, and December 31, 2023.   Accounts receivable consist of the following: <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> June 30, 2024 </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> December 31, 2023 </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); 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font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">410,617</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Unbilled receivable </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);">61,722</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; 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font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table> 188084410617617225554224980646615 9 Accounts Payable   Accounts payable consist of the following: <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> June 30, 2024 </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-

variant:normal;text-align:center;margin:0pt;">December 31, 2023 </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> (Unaudited) </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> (Audited) </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; width: 70%;"> Research and development expenses </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">204,354</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">575,436</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Legal expenses </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">158,228</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">1,957</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Other </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">69,939</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">79,052</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> </tbody></table> <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); 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text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">561,720</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; width: 70%;"> Research and development expenses </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">499,056</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">274,080</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> Legal expenses </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0">41,360</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; 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font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">11,360</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">870,597</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">1,057,164</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table>   <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> June 30, 2024 </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td

colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> December 31, 2023 </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> (Unaudited) </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> (Audited) </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Employee wages and benefits </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">330,181</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">561,720</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; width: 70%;"> Research and development expenses </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">499,056</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">274,080</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> Legal expenses </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 12%; 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font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">—</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">11,360</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">870,597</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">1,057,164</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table> 330181561720499056274080413602100040113608705971057164 Deferred Financing Costs   Deferred financing costs represent costs incurred in connection with the issuance of debt instruments and equity financings. Deferred financing costs related to the issuance of debt are amortized over the term of the financing instrument using the effective interest method and are presented in the consolidated balance sheets as an offset against the related debt. Offering costs from equity financings are netted against the gross proceeds received from the equity financings. See Note 4 for the amortization amount.   Research and Development Costs   Research and development (“R&D”) costs are expensed as incurred. R&D costs are for the Company’s internally funded pharmaceutical programs and other governmental and commercial projects.   Research and development costs consist of personnel-related costs, facilities, research-related overhead, services from independent contract research organizations, and other external costs. Research and development costs, including related party, for the three and six months ended June 30, 2024 and 2023 were as follows: <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Three Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Six Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; 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font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">748,139</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">783,434</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">1,391,186</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(255, 255, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Personnel related costs </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">106,889</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; 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family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">213,216</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">299,608</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(204, 238, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Facilities, overhead and other </td><td style="width: 1%; 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font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Six Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; 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font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td></tr> <tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> (Unaudited) </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> (Unaudited) </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> (Unaudited) </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(204, 238, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 52%;"> Outside contracted services </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">395,188</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">748,139</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">783,434</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">1,391,186</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(255, 255, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Personnel related costs </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">106,889</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">147,414</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">213,216</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">299,608</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(204, 238, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Facilities, overhead and other </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">13,552</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">21,999</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">41,702</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">37,324</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(255, 255, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td></tr> </tbody>
</table>39518800074813900078343400013911860001068890001474140002132160002996080001355200021999000417020003732400051562900091755200010383520002 Foreign Currency Transaction Gain or Loss   The Company and its foreign subsidiary use the U.S. dollar as its functional currency, and initially measure the foreign currency denominated assets and liabilities at the transaction date. Monetary assets and liabilities are then re-measured at exchange rates in effect at the end of each period, and property and non-monetary assets and liabilities are carried at historical rates. Fair Value Measurements   The Company applies fair value accounting for certain financial instruments that are recognized or disclosed at fair value in the financial statements. The Company defines fair value as the price that would be received from selling an asset or paid to

transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement: <table border="0" cellpadding="0" cellspacing="0" style="font-size: 10pt; font-family: "Times New Roman", Times, serif; width: 100%;"><tbody><tr><td style="width: 3%; vertical-align: top;"> </td><td style="width: 3%; vertical-align: top;">•</td><td style="width: 94%; vertical-align: top;">Level 1 – Quoted prices in active markets for identical assets or liabilities.</td></tr> <tr><td style="width: 3%; vertical-align: top;"> </td><td style="width: 3%; vertical-align: top;">•</td><td style="width: 94%; vertical-align: top; text-align: justify;">Level 2 – Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. </td></tr> <tr><td style="width: 3%; vertical-align: top;"> </td><td style="width: 3%; vertical-align: top;">•</td><td style="width: 94%; vertical-align: top;">Level 3 – Inputs that are generally unobservable and typically reflect management's estimate of assumptions that market participants would use in pricing the asset or liability.</td></tr> </tbody></table>   The Company's financial instruments included cash and cash equivalents, investment in debt securities, accounts receivable and accrued expenses, accrued payroll and related liabilities, deferred research and development obligations, deposits, and the Company's 8% Senior Secured Convertible Promissory Notes (the "Convertible Notes"), due March 2027. The carrying amount of these financial instruments, except for investment in debt securities and Convertible Notes, approximates fair value due to the short-term maturities of these instruments. The Company's short-term and long-term investments in debt securities are recorded at amortized cost, and their estimated fair value amounts are provided by the third-party broker service for disclosure purposes. See Note 4 for additional information related to the Convertible Notes. Income Taxes   For the six months ended June 30, 2024, there was no provision for income taxes or unrecognized tax benefits recorded. As of June 30, 2024 and December 31, 2023, deferred tax assets were $17.8 million and $16.4 million, respectively. Due to the Company's history of operating losses and the uncertainty regarding our ability to generate taxable income in the future, the Company has established a 100% valuation allowance against deferred tax assets as of June 30, 2024 and December 31, 2023. 178000001640000001 Stock-Based Compensation   We recognize all share-based payments to employees, consultants, and our Board of Directors (the "Board"), as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations based on the grant date fair values of such payments. Stock-based compensation expense recognized each period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur.   For performance-based awards, the Company recognizes related stock-based compensation expenses based upon its determination of the potential likelihood of achievement of the specified performance conditions at each reporting date.   Net Loss Per Share   Basic net loss per share is computed by dividing net loss available to common shareholders by the weighted average number of common stock shares outstanding during the reporting period. Diluted net loss per share adjusts the weighted average number of common stock shares outstanding for the potential dilution that could occur if common stock equivalents, such as stock options were exercised and converted into common stock, calculated by applying the treasury stock method.   For the three and six months ended June 30, 2024, a total of 5,948,147 shares of potentially dilutive securities, including 117,925 shares of unvested restrict stock units and options to purchase 5,830,222 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive. For the three and six months ended June 30, 2023, a total of 5,619,491 shares of potentially dilutive securities, including 163,044 shares of unvested restrict stock units and options to purchase 5,456,447 shares of common stock, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive 594814711792558302225619491163044545644 7 Recent Accounting Pronouncements Not Adopted as of June 30, 2024   In December 2023, the FASB issued Accounting Standards Update 2023-09 - Income Taxes (Topic ASC 740) Income Taxes. The ASU improves the transparency of income tax disclosures by requiring (1) consistent categories and greater disaggregation of information in the rate reconciliation and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. The amendments in ASU 2023-09 will become effective for annual periods beginning January 1, 2025, Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. We do not expect that this guidance will have a material impact on our financial position and results of operations.   In November 2023, the FASB issued Accounting Standards Update 2023-07 - Segment Reporting (Topic ASC 280) Improvements to Reportable Segment Disclosures. The ASU improves reportable segment disclosure requirements, primarily through enhanced disclosure about significant segment expenses. The enhancements under this update require disclosure of significant segment expenses that are regularly provided to the Chief Operating Decision Maker ("CODM") and included within each reported measure of segment profit or loss, require disclosure of other segment items by reportable segment and a description of the composition of other segment items, require annual disclosures under ASC 280 to be provided in interim periods, clarify use of more than one measure of segment profit or loss by the CODM, require that the title of the CODM be disclosed with an explanation of how the CODM uses the reported measures of segment profit or loss to make decisions, and require that entities with a single reportable segment provide all disclosures required by this update and required under ASC 280. ASU 2023-07 is effective for public business entities for fiscal years beginning January 1, 2024, and interim periods beginning January 1, 2025, with early adoption permitted. We do not expect that this guidance will have a material impact on our financial position and results of operations.   Note 2: Cash, Cash Equivalents, and Investments   The Company's investments in debt securities are classified as held-to-maturity and are recorded at amortized cost, net of allowance for credit losses, and its investments in money market funds are classified as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets. The following table shows the Company's cash, available-for-sale securities, and investment securities by major security type as of June 30, 2024, and December 31, 2023:   <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="22" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> June 30, 2024 (Unaudited) </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> Allowance </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> Gross </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> Level </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New

Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> for </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> Unrealized </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> Unrealized </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> ⁽¹⁾ </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Fair Value </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Credit Losses </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Holding Gains </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Holding Losses </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Adjusted Cost </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 28%;"> Cash and Cash Equivalents </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Cash </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">683,233</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">683,233</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Money Market Funds ⁽²⁾ </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: center;">1</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">5,450,165</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">5,450,165</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Subtotal </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">6,133,398</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; 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font-family: "Times New Roman", Times, serif; font-size: 10pt;">

Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Short-Term Investment Securities ⁽³⁾ </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; 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font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: center;">2</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">3,962,295</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">(2,222</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;">)</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">3,964,517</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; margin: 0pt;">Total </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">10,095,693</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">(2,222</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;">)</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">10,097,915</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table>   <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="21" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> December 31, 2023 (Audited) </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: center; font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; 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font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="1" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> Level </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: center; font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> for </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> Unrealized </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> Unrealized </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: center; font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="1" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> (1) </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Fair Value </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Credit Losses </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Holding Gains </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; 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variant: normal; margin: 0pt;">Cash and Cash Equivalents </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; 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font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">25,775</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> <p style="font-family: "Times New Roman"; font-size: 10pt; font-variant: normal; margin: 0pt;">Money Market Funds ⁽²⁾</p> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 9%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; text-align: center;"><em style="font: inherit;">1</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">6,489,253</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman" font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman" font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">6,515,028</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> <p style="font-family: "Times New Roman" font-size: 10pt; font-variant: normal; margin: 0pt;">Short-Term Investment Securities⁽³⁾</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt; text-align: center;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; 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font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman" font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman" font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman" font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);">(185</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; padding-bottom: 1px;">)</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">748,290</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> <p style="font-family: "Times New Roman"; font-size: 10pt; font-variant: normal; margin: 0pt;">Total</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: right; font-family: Times New Roman; font-size: 10pt;"><em style="font: inherit;"> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">7,263,133</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; 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font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; padding-bottom: 3px;">)</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">7,263,318</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table> _____ Notes: (1) Definition of the three-level fair value hierarchy: <table border="0" cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><tbody><tr style="vertical-align: top; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="width: 27pt; font-size: 10pt; font-family:

"Times New Roman", Times, serif;"> </td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> • </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities </td></tr> </tbody></table> <table border="0" cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><tbody><tr style="vertical-align: top; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="width: 27pt; font-size: 10pt; font-family: "Times New Roman", Times, serif;"> </td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> • </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Level 2 - Other inputs that are directly or indirectly observable in the markets </td></tr> </tbody></table> <table border="0" cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><tbody><tr style="vertical-align: top; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="width: 27pt; font-size: 10pt; font-family: "Times New Roman", Times, serif;"> </td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> • </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Level 3 - Inputs that are generally unobservable </td></tr> </tbody></table> (2) All our money market funds were invested in U.S. Government money market funds. (3) Short-term investment securities will mature within 12 months or less, from the applicable reporting date. (4) For the three months ended June 30, 2024 and 2023, the Company received discounts of $31,357 and $17,601 to purchase held-to-maturity investment securities, respectively. For the six months ended June 30, 2024 and 2023, the Company received discounts of $61,472 and $32,834 to purchase held-to-maturity investment securities, respectively. For the year ended December 31, 2023, the Company received discounts of $39,012 to purchase held-to-maturity investment securities. (5) The Company considers the declines in market value of its investment portfolio to be temporary in nature. As of June 30, 2024 and December 31, 2023, the Company did not consider any of its investments to be other-than-temporarily impaired and no allowance for credit losses was recorded.   <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="22" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> June 30, 2024 (Unaudited) </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; 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font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> for </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> Unrealized </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> Unrealized </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> ⁽¹⁾ </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Fair Value </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Credit Losses </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Holding Gains </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Holding Losses </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Adjusted Cost </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 28%;"> Cash and Cash Equivalents </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; 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font-family: "Times New

Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">683,233</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">683,233</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Money Market Funds ⁽²⁾ </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: center;">1</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">5,450,165</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; 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font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">6,133,398</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; 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font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Short-Term Investment Securities ⁽³⁾ </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; 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font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: center;">2</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">3,962,295</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; 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font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">3,964,517</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Total </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">10,095,693</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; 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family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">(2,222</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;">)</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">10,097,915</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table> <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="21" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;"><em style="font: inherit;"><em style="font: inherit;"><em style="font: inherit;"><em style="font: inherit;"><em style="font: inherit;">December 31, 2023 (Audited)</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: center; font-family: Times New Roman; font-size: 10pt;"><em style="font: inherit;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: center; font-family: Times New Roman; font-size: 10pt;"><em style="font: inherit;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Allowance</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Gross</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Gross</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: center; font-family: Times New Roman; font-size: 10pt;"><em style="font: inherit;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="1" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Level</p> </td><td style="font-family: Times New Roman; 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font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Unrealized</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: center; font-family: Times New Roman; font-size: 10pt;"><em style="font: inherit;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="1" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">(1)</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Fair Value</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Credit Losses</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Holding Gains</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Holding Losses</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family:Times New Roman;font-size:10pt;font-variant:normal;text-align:center;margin:0pt;"><em style="font: inherit;">Adjusted Cost</p> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; width: 28%;"> <p style="font-family: "Times New Roman"; font-size: 10pt; font-variant: normal; margin: 0pt;">Cash and Cash Equivalents</p> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; 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font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">25,775</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">25,775</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Money Market Funds ⁽²⁾ </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 9%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; text-align: center;">1</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">6,489,253</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; 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margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">6,515,028</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">6,489,253</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> Subtotal </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt; text-align: center;"> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px;"> </td><td style="width: 1%; font-family: Times New Roman; 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Roman"; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">6,515,028</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr><tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Short-Term Investment Securities⁽³⁾ </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt; text-align: center;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; 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font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">—</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">(185</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; padding-bottom: 1px;">)</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);">748,290</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td></tr><tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Total </td><td style="font-family: Times New Roman; font-size: 10pt;"> </td><td style="text-align: right; font-family: Times New Roman; font-size: 10pt;"> </td><td style="font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">7,263,133</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; 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Note 3: Research and Collaboration Agreements, Sublicense Agreements, and Investments in Privately Held Companies   Proliant   On June 27, 2024, the Company entered into a License and Development Agreement (the “Proliant Agreement”) with Proliant Biologicals, LLC d/b/a Proliant Health and Biologicals (“Proliant”), pursuant to which Proliant will license Dyadic’s proprietary fungal microbial expression and production platforms and microbial strains for the production of recombinant serum albumin. Under the terms of the Proliant Agreement, Dyadic will receive an initial upfront payment of $500,000, a second payment of $500,000 upon the completion of the transfer of a Production Strain (as defined in the Proliant Agreement.), and a final payment of $500,000 upon the meeting of a certain productivity threshold. Dyadic also will receive a share of the profits received by Proliant from the sale of animal-free recombinant serum albumin products produced pursuant to the Proliant Agreement.   In July 2024, the Company has received the initial payment of $500,000. For the three and six months ended June 30, 2024, there was no revenue recognized related to the Proliant Agreement.   Inzymes ApS   On September 18, 2023, Dyadic International (USA) Inc., a subsidiary of the Company, signed a Development and Exclusive License Agreement (the “Inzymes Agreement”) with Inzymes ApS (“Inzymes”), a Denmark corporation, to develop and commercialize certain non-animal dairy enzymes used in the production of food products using Dyadic’s proprietary Dapibus™ platform.   Under the terms of the Inzymes Agreement, a research collaboration to develop a basket of dairy enzymes will be fully funded by Inzymes with an upfront payment of $0.6 million and an additional payment payable upon the first commercial sale of product. Dyadic will also be eligible to receive success fees upon the achievement of certain target yields, milestone payments upon first commercial sale of each product and royalties.   In October 2023, the Company received an upfront payment of $0.6 million in accordance with the terms of the Inzymes Agreement. The payment consisted of funding for specified product research and development efforts and right of first refusal for certain product candidates. For the three and six months ended June 30, 2024, the Company recorded research and development revenues of $52,000 and $92,000, respectively, in connection with the Inzymes Agreement.   A Global Food Ingredient Company   On May 10, 2022, the Company entered into a Joint Development Agreement (the “JDA”) with a Global Food Ingredient Company (“GFIC”) to develop and manufacture several animal free ingredient products using the Company’s biotechnologies.   Under the initial terms of the JDA, Dyadic was to develop its proprietary production cell lines for the manufacture of animal free ingredient product candidates. The GFIC has completed its one-year funding commitment for the initial phase of research collaboration in an amount approximating $1.35 million, and, pursuant to the GFIC’s rights under the JDA, the Company and the GFIC are in discussions related to the potential development of other animal free ingredient products. The Company is also considering other funding sources to continue the original project.   For the three and six months ended June 30, 2024, there was no revenue recognized related to this JDA. For the three and six months ended June 30, 2023, the Company recorded research and development revenues of approximately $226,000 and $565,000, as well as Success Fees of approximately $65,500 in connection with the JDA, respectively.   Janssen   On December 16, 2021, the Company entered a Research, License, and Collaboration Agreement (the “Janssen Agreement”) for the manufacture of therapeutic protein candidates using

its C1-cell protein production platform with Janssen Biotech, Inc., one of the Janssen Pharmaceutical Companies of Johnson & Johnson (“Janssen”).   On October 2, 2023, Janssen provided written notice to Dyadic that it has decided to wind down the collaboration with an effective end date of December 31, 2023.   For the three and six months ended June 30, 2024, there was no revenue recognized related to the Janssen Agreement. For the three and six months ended June 30, 2023, the Company recognized approximately $44,000 and $88,000 of license revenue, respectively. For the three and six months ended June 30, 2023, the Company recorded research and development revenues of approximately $191,000 and $380,000, respectively, in connection with the Janssen Agreement.   Alphazyme   In 2019 the Company entered into a sub-licensing agreement with Alphazyme, LLC (“Alphazyme”) that was subsequently amended (the “Amended Alphazyme LLC Agreement”). Under the Amended Alphazyme LLC Agreement, Alphazyme obtained additional capital contribution and Dyadic’s ownership was diluted to 1.99%.   The Company evaluated the nature of its equity interest investment in Alphazyme and determined that Alphazyme is a VIE due to the capital structure of the entity. However, the Company is not the primary beneficiary of Alphazyme as Dyadic does not have the power to control or direct the activities of Alphazyme that most significantly impact the VIE. As a result, the Company does not consolidate its investment in Alphazyme. The Company reports its investment in Alphazyme under the cost method of accounting, given that it does not have the ability to exercise significant influence or control over Alphazyme.   On January 18, 2023, the Company entered into a Securities Purchase Agreement, under which the Company agreed to sell its equity interest in Alphazyme, LLC (the “Alphazyme Sale Agreement”). The Company continues to have the potential to receive additional payments based on the future sales of Alphazyme’s existing products, pursuant to the Alphazyme Sale Agreement.   The Amended Sublicense Agreement between Dyadic and Alphazyme, which was previously entered on June 24, 2020, remains in effect. Under the Amended Alphazyme Sub-License Agreement, Dyadic is entitled to potential milestone and royalty payments upon the commercialization of Alphazyme products using Dyadic’s proprietary C1-cell protein production platform.   For the year ended December 31, 2023, the Company received a total cash payment of $1.3 million from the sale of its equity interest in Alphazyme, LLC. In the first quarter of 2024, the Company received an additional cash payment of $61,977, which was recorded as gain on sale of Alphazyme in the consolidated statement of operations.   5000005000005000005000006000006000005200092000022600056500065500044000880001910003800000.01991300000061977 Note 4 Convertible Notes Payable   On March 8, 2024, the Company issued senior secured convertible promissory notes (the “Convertible Notes”) with an aggregate principal amount of $6.0 million, of which, $2.0 million were sold to related parties, including immediate family members and family trusts related to Mark Emalfarb, our President and Chief Executive Officer and a member of our Board of Directors.   The Convertible Notes are senior, secured obligations of the Company and its affiliates, and interest is payable quarterly in cash on the principal amount equal to 8% per annum, and guaranteed by its subsidiary, Dyadic International (USA), Inc. under a subsidiary guarantee for the benefit of the holders of the Convertible Notes (each such holder, a “Holder”).   The Convertible Notes mature on March 8, 2027, unless earlier converted or redeemed in accordance with the terms of the Convertible Notes. The Convertible Notes are secured by a first priority lien on substantially all assets of the Company and Dyadic International (USA), Inc.   The Holders may require the Company to redeem all or any part of the Convertible Notes on a redemption date falling on any of the 18, 21, 24, 27, 30, and 33-month anniversaries of the original issue date of the Convertible Notes (any such date, a “Redemption Date”) upon not less than 60 calendar days written notice prior to the applicable Redemption Date. The Company may also elect to redeem all or any part of the Convertible Notes on a Redemption Date upon not less than 60 calendar days written notice prior to the applicable Redemption Date.   The Convertible Notes are convertible into shares of the Company’s common stock, in whole or in part, at the option of the Holders at any time, based on an initial conversion price of $1.79 per share of common stock. For the three months ended June 30, 2024, $400,000 of the Convertible Notes were converted into 223,463 shares of the Company’s common stock.   The Convertible Notes are accounted for in accordance with ASC 470-20, Debt with Conversion and Other Options and ASC 815-15, Derivatives and Hedging. Under ASC 815, contracts that are both indexed to its own stock and classified in stockholders’ equity in its statement of financial position are not considered to be derivative instruments. Based on the Company’s analysis, it is determined that the Convertible Notes contain embedded features that are indexed to the Company’s own stock and are classified in stockholders’ equity in the Company’s statement of financial position, but do not meet the requirements for bifurcation and recognition as derivatives, and therefore, do not need to be accounted for separately. Accordingly, the proceeds received from the issuance of the Convertible Notes were recorded as a single liability in accordance with ASC 470 on the Company’s consolidated balance sheets.   The Company incurred $176,000 of debt issuance costs associated with the Convertible Notes, which were recorded as a reduction of the Convertible Notes on the consolidated balance sheets. The debt issuance costs are being amortized and recognized as additional interest expense over the expected life of the Convertible Notes using the effective interest method. We determined the expected life of the debt is equal to the three-year term of the Convertible Notes.   As of June 30, 2024, accrued interest on the Convertible Notes to related parties and other third parties were $32,000 and $80,000, respectively, and was recognized as interest expenses in the consolidated statements of operations.   For the three months ended June 30, 2024, $34,844 of interest was paid and debt issuance costs of $23,591 were amortized and recorded in interest expense in the consolidated statements of operations. For the six months ended June 30, 2024, $34,844 of interest was paid and debt issuance costs of $26,716 were amortized and recorded in interest expense in the consolidated statements of operations. As of June 30, 2024, accumulated amortized debt issuance costs are $26,716.   As of June 30, 2024, convertible notes payable consisted of the following: <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 26%; border-top: 1px solid black; border-bottom: 1px solid black; border-left: 1px solid black;"> Holder </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 8%; border-top: 1px solid black; border-bottom: 1px solid black;"> Issuance Date </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 6%; border-top: 1px solid black; border-bottom: 1px solid black;"> Due Date </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> Interest Rate </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> Convertible Note Principal </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> <p style="font-family: "Times New Roman", Times, serif; font-size:

10pt; font-variant: normal; text-align: center; margin: 0pt;">Conversion to Common Stock </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> Principal Outstanding </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black; border-right: 1px solid black;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(204, 238, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 26%;"> Francisco Trust dated 2/20/1996 ⁽¹⁾ </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 8%;"> 03/08/24 </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 6%;"> 03/08/27 </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: center;">8%</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">1,000,000</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; 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font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;">03/08/24</p> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 6%;"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;">03/08/27</p> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: center;">8%</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"><b>$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">4,000,000</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">4,000,000</td><td style="width: 1%; 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60000000.081.7940000022346317600032000800003484423591348442671626716 <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 26%; border-top: 1px solid black; border-bottom: 1px solid black; border-left: 1px solid black;"> Holder </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 8%; border-top: 1px solid black; border-bottom: 1px solid black;"> Issuance Date </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 6%; border-top: 1px solid black; border-bottom: 1px solid black;"> Due Date </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> Interest Rate </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> Convertible Note Principal </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> Principal Repayments </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> Conversion to Common Stock </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid black; width: 1%; border-top: 1px solid black;"> Principal Outstanding </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%; border-top: 1px solid black; border-bottom: 1px solid black; border-right: 1px solid black;"> </td></tr> <tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(204, 238, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 26%;"> Francisco Trust dated 2/28/1996 ⁽¹⁾ </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 8%;"> 03/08/24 </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 6%;"> 03/08/27 </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: center;">8%</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">1,000,000</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; 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font-size: 10pt; width: 8%;"> </td><td colspan="2" style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 6%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 9%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 9%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; 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font-size: 10pt; background-color: rgb(204, 238, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 26%;"> Net Carrying Amount </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 8%;"> </td><td colspan="2" style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 6%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 9%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 9%;"> </td><td style="font-family: "Times New Roman", Times, serif; 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font-size: 10pt; width: 1%;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">1,557,441</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr><tr style="vertical-align: bottom; font-family: "Times New Roman", Times, serif; font-size: 10pt; background-color: rgb(255, 255, 255);"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 26%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 8%;"> </td><td colspan="2" style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 6%;"> </td><td style="font-family: "Times New Roman", Times, serif; 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0pt;">03/08/24 </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 6%;"> 03/08/27 </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 9%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: center;">8%</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">4,000,000</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"><em style="font: inherit;">—</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">— </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; 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font-size: 10pt; width: 26%;"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; margin: 0pt; text-align: center;">Net Carrying Amount</p> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 8%;"><em style="font: inherit;"> </td><td colspan="2" style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 6%;"><em style="font: inherit;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 9%;"><em style="font: inherit;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; 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font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">3,893,602</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table>

10000001000000500000400000100000410000410000900009000000.082000040000022346382001800 Note 5:   Commitments and Contingencies   Legal Proceedings   We are not currently involved in any litigation that we believe could have a materially adverse effect in our financial condition or results of operations. From time to time, the Company is subject to legal proceedings, asserted claims and investigations in the ordinary course of business, including commercial claims, employment and other matters, which management considers immaterial, individually and in the aggregate. The Company makes a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The requirement for these provisions is reviewed at least quarterly and adjusted to reflect the impact of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular case. Litigation is inherently unpredictable and costly. Protracted litigation and/or an unfavorable resolution of one or more of proceedings, claims or investigations against the Company could have a material adverse effect on the Company's consolidated financial position, cash flows or results of operations.   VTT Research Contract Extension   On January 31, 2024, the Company entered into a Third Amendment to the commission contract concerning VTT Technical Research Centre of Finland Ltd. ("VTT") to develop Dyadic's C1 fungal expression system for therapeutic protein production. The original contract was entered on June 28, 2019, and subsequently amended by the First Amendment on June 21, 2022, and the Second Amendment on September 9, 2022. Under the terms of the Third Amendment, the contract duration was extended to January 31, 2025, and Dyadic will pay VTT a total of EUR €186,000 to continue developing Dyadic's C1-cell protein production platform for therapeutic protein production, including our C1 host system. Dyadic has the right to terminate the contract with 90 days' notice. Note 6: Share-Based Compensation   Description of Equity Plans   The 2021 Equity Incentive Award Plan (the "2021 Plan") was adopted by the Company's Board of Directors on April 9, 2021 and approved by the Company's Annual Meeting of Shareholders (the "Annual Meeting") on June 11, 2021. The 2021 Plan serves as a successor to the Company's 2011 Equity Incentive Plan (the "2011 Plan"). Since the adoption of the 2021 Plan, all equity awards were made from the 2021 Plan and no additional awards will be granted under the 2011 Plan. The 2021 Plan provides for the issuance of a variety of share-based compensation awards, including stock options, restricted stock awards, restricted stock unit awards, performance awards, dividend equivalents awards, deferred stock awards, stock payment awards and stock appreciation rights. As of April 16, 2021, the 2021 Plan increased the number of shares available for grant by 3,000,000 in addition to the number of shares remaining available for the grant of new awards under the 2011.   As of June 30, 2024, the Company had 5,830,222 stock options outstanding and 117,925 unvested restricted stock units in addition to 2,040,004 shares of common stock available for grant under the 2021 Plan. As of December 31, 2023, there were 5,469,247 stock options outstanding and 243,044 unvested restricted stock units in addition to 2,773,406 shares of common stock available for grant under the 2021 Plan.   Stock Options   Options are granted to purchase common stock at prices that are equal to the fair value of the common stock on the date the option is granted. Vesting is determined by the Board of Directors at the time of grant. The term of any stock option awards under the Company's 2011 Plan and 2021 Plan is ten years, except for certain options granted to the contractors which are either one or three years.   The grant-date fair value of each option grant is estimated using the Black-Scholes option pricing model and amortized on a straight-line basis over the requisite service period, which is generally the vesting period, for each separately vesting portion of the award as if the award was, in substance, multiple awards. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs, including the following. <p style="font-family: "Times New Roman"; font-size: 10pt; font-variant: normal;

margin: 0pt; text-indent: 36pt; text-align: justify;"> Risk-free interest rate. The risk-free interest rate is based on U.S. Treasury rates with securities approximating the expected lives of options at the date of grant.   Expected dividend yield. The expected dividend yield is zero, as the Company has never paid dividends to common shareholders and does not currently anticipate paying any in the foreseeable future.   Expected stock price volatility. The expected stock price volatility was calculated based on the Company's own volatility since the DuPont Transaction in 2015. The Company reviews its volatility assumption on an annual basis and has used the Company's historical volatilities since 2016, as the DuPont Transaction resulted in significant changes in the Company's business and capital structure.   Expected life of option. The expected life of option was based on the contractual term of the option and expected employee exercise and post-vesting employment termination behavior. The Company uses the weighted average vesting period and contractual term of the option as the best estimate of the expected life of a new option, except for the options granted to the CEO (i.e., 5 or 10 years) and certain contractors (i.e., 1 or 3 years).   The assumptions used in the Black-Scholes option pricing model for stock options granted for the six months ended June 30, 2024 are as follows: <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; width: 85%;"> Risk-Free interest rate </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">3.93% - 4.61%</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Expected dividend yield </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> —% </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Expected stock price volatility </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> 63.31% </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Expected life of options (in years) </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">5.50-6.25</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> </tbody></table>   The following table summarizes the stock option activities for the six months ended June 30, 2024:   <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 1%;"> Weighted-Average </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td colspan="2" style="text-align: center; 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font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> Value </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Outstanding at December 31, 2023 </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">5,469,247</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">3.08</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 14%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">5.66</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">322,738</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Granted ⁽¹⁾ </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">812,600</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">1.60</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Exercised </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: right;">(30,000</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">)</td><td style="width: 1%; font-family:

"Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: right;">1.36</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Expired ⁽²⁾ </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">(358,500</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">)</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">2.10</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Canceled ⁽³⁾ </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">(63,125</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;">)</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">1.59</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0); width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0); width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Outstanding at June 30, 2024 </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">5,830,222</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">2.96</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 14%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">5.83</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">138,360</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; 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padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">3.20</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 14%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">4.89</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">109,383</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table>   _____ Notes: (1) Represents the following options granted: <table cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; margin-right: 0pt;"><tbody><tr style="vertical-align: top; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> • </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Annual share-based compensation awards on January 2, 2024, with an exercise price of $1.59, including: (a) 387,500 stock options granted to executives and key personnel, vesting upon one year anniversary, or annually in equal installments over four years, (b) 352,500 stock options granted to members of the Board of Directors, vesting upon one year anniversary, (c) 17,600 stock options granted to employees, vesting annually in equal installments over four years, and (d)15,000 stock options granted to a consultant, vesting upon one year anniversary. </td></tr> <tr><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;">•</td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;">One-time awards on April 11, 2024, with an exercise price of $1.84, including 20,000 stock options granted to an executive, vesting annually in equal installments over four years, and 20,000 stock options granted to a member of the Board of Directors, vesting upon one year anniversary.</td></tr> </tbody></table> (2) Represents the following options expired: <table cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; margin-right: 0pt;"><tbody><tr style="vertical-align: top; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> (a) 300,000 stock options with an exercise price of $1.87 per share granted to an executive, (b) 25,000 stock options with an exercise price of $1.76 per share granted to a member of the Board of Directors, (c) 7,500 stock options with an exercise price of $5.56 per share granted to a consultant, (d) 25,000 stock options with an exercise price of $4.14 per share granted to a consultant, and (e) 1,000 stock options with an exercise price of $1.55 per share granted to an employee. </td></tr> </tbody></table> (3) Represents the following options canceled: <table cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; margin-right: 0pt;"><tbody><tr style="vertical-align: top; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> (a) 50,000 stock options granted to a former Board of Directors, (b) 13,125 stock options granted to the Company's former Chairman of the Board of Directors. </td></tr> </tbody></table>   <p style="font-family: "Times New Roman"; font-size: 10pt; font-variant: normal;

margin: 0pt 0pt 0pt 8pt; text-indent: -9pt;">Restricted Stock Units   Restricted stock units (the "RSUs") are granted subject to certain restrictions. Vesting conditions are determined at the discretion of the Board of Directors. The fair market value of RSUs is generally determined based on the closing market price of the stock on the grant date.   The following table summarizes the restricted stock award activity for the six months ended June 30, 2024:   <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman"; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> Weighted-Average </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Grant Date </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Shares </td><td style="font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Fair Value </td><td style="font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt; width: 70%;"> Outstanding at December 31, 2023 </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 12%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; text-align: right;">213,044</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">1.43</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> <p style="font-family: "Times New Roman"; font-size: 10pt; font-variant: normal; margin: 0pt;">Granted ⁽¹⁾</p> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">354,219</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">1.60</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> <p style="font-family: "Times New Roman"; font-size: 10pt; font-variant: normal; margin: 0pt;">Vested ⁽²⁾</p> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">(437,546</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; padding-bottom: 1px;">)</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">1.52</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt; padding: 0; margin: 0"> <p style="margin: 0pt; font-size: 10pt; font-family: "Times New Roman";">Unvested shares forfeited ⁽³⁾</p> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">(11,792</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding: 0; margin: 0">)</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; padding: 0; margin: 0">1.59</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> <p style="font-family: "Times New Roman"; font-size: 10pt; font-variant: normal; margin: 0pt;">Outstanding at June 30, 2024</p> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">117,925</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">1.59</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td></tr> </tbody></table> _____ Notes: <table cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; margin-right: 0pt;"><tbody><tr style="vertical-align: top; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;">(1)</td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;">   </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; text-align: justify;"> On March 13, 2024, the Company granted 212,709 RSUs with immediate vesting, to executives and key personnel in lieu of cash bonuses earned for the year ended 2023. On January 2, 2024, the Company granted 141,510 RSUs, vesting upon one year anniversary of the grant, to the Board of Directors. The fair value of the common stock is the Company's closing stock price on the grant date as reported on the Nasdaq Stock Exchange. </td></tr> </tbody></table> <table cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; margin-right: 0pt;"><tbody><tr style="vertical-align: top; font-family: "Times New Roman", Times, serif; font-size: 10pt;"><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;">(2)</td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;">   </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; text-align: justify;"> Represents 212,709 RSUs granted to executives and key personnel, 174,837 RSUs granted to the Board of Directors, and 50,000 RSUs granted to a contractor. </td></tr> <tr><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;">(3)</td><td style="width: 18pt; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; text-align: justify;">Represents the cancellation of RSUs granted to a former member of the Board of Directors.</td></tr> </tbody></table>   Compensation Expenses   We recognize all share-based payments to employees and our Board of Directors, as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations, and these charges had no impact on the Company's reported cash flows. Stock-based compensation expense is calculated on the grant date fair values of such awards, and recognized each period based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur. For the three and six months ended June 30, 2024, there were forfeitures of $20,000 and $40,000, respectively.   For performance-based awards, the Company recognizes related stock-based compensation expenses based upon its determination of the potential likelihood of achievement of the specified performance conditions at each reporting date.   Total non-cash share-based compensation expense was allocated among the following expense categories: <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Three Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Six Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p

style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;">2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> General and administrative </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">285,372</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">323,796</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">579,406</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">643,132</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> Research and development </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">12,231</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">10,520</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">24,675</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">21,823</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Total </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">297,603</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">334,316</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">604,081</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">664,955</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table>   The following table summarizes the Company's non-cash share-based compensation expense allocation between options and restricted stock units: <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Three Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Six Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> Share based compensation expense - stock option </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">243,538</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">278,373</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">433,807</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">554,914</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> Share based compensation expense - restricted stock units </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">54,065</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">55,943</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">170,274</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New

Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">110,041</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> Total </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">297,603</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">334,316</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">604,081</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">664,955</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr></tbody></table>   3000000583022211792520400045469247243044277340 6P5YP10YP1YP3Y <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: Times New Roman; text-indent: 0px;"><tbody><tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt; width: 85%;"> Risk-Free interest rate </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">3.93% - 4.61%</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Expected dividend yield </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> —% </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Expected stock price volatility </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> 63.31% </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: Times New Roman; font-size: 10pt;"> Expected life of options (in years) </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;">5.50-6.25</td><td style="width: 1%; font-family: Times New Roman; font-size: 10pt; margin-left: 0pt;"> </td></tr> </tbody></table> 0.03930.04610.6331P5Y6MP6Y3M <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; 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font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; width: 1%;"> Aggregate Intrinsic </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> Shares </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> Exercise Price </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> Term (Years) </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> Value </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Outstanding at December 31, 2023 </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">5,469,247</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">3.08</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 14%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">5.66</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">322,738</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Granted ⁽¹⁾ </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">812,600</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">1.60</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; margin: 0pt;">Exercised </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: right;">(30,000</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;">)</td><td style="width: 1%; font-family:

"Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 12%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; text-align: right;">1.36</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; 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font-size: 10pt; margin-left: 0pt;">2.10</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Canceled ⁽³⁾ </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">(63,125</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;">)</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0); text-align: right;">1.59</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; margin-left: 0pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0); width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0); width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 1px solid rgb(0, 0, 0); width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px; width: 1%;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Outstanding at June 30, 2024 </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">5,830,222</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">2.96</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 14%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">5.83</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">138,360</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 14%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 12%;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 1%;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; width: 38%;"> Exercisable at June 30, 2024 </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">4,430,623</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">3.20</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 14%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">4.89</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">109,383</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td></tr> </tbody></table>
54692473.08P5Y7M28D3227388126001.6300001.363585002.1631251.5958302222.96P5Y9M29D138360443062333.2P4Y10M20D1093831.59387500352500176001500018420
<table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman"; text-indent: 0px;">
<tbody><tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> Weighted-Average </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="text-align: center; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> Grant Date </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Shares </td><td style="font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman"; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Fair Value </td><td style="font-family: "Times New Roman"; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt; width: 70%;"> Outstanding at December 31, 2023 </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 12%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt; text-align: right;">213,044</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">1.43</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman"; font-size: 10pt;"> Granted ⁽¹⁾ </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">354,219</td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman"; font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman"; font-size: 10pt; margin-left: 0pt;">1.60</td><td style="width: 1%; font-family: "Times New Roman";

font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", font-size: 10pt;"> Vested ⁽²⁾ </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; padding-bottom: 1px;"> </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", font-size: 10pt; margin-left: 0pt;">(437,546</td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; margin-left: 0pt; padding-bottom: 1px;">) </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt;"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", font-size: 10pt; margin-left: 0pt;">1.52</td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; margin-left: 0pt;"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", font-size: 10pt; padding: 0; margin: 0"> Unvested shares forfeited ⁽³⁾ </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">(11,792</td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; padding: 0; margin: 0">)</td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", font-size: 10pt; padding: 0; margin: 0">1.59</td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", font-size: 10pt;"> Outstanding at June 30, 2024 </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; border-bottom: 3px double rgb(0, 0, 0);"> </td><td style="width: 12%; text-align: right; font-family: "Times New Roman", font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">117,925</td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; margin-left: 0pt;">$</td><td style="width: 12%; text-align: right; font-family: "Times New Roman", font-size: 10pt; margin-left: 0pt;">1.59</td><td style="width: 1%; font-family: "Times New Roman", font-size: 10pt; margin-left: 0pt;"> </td></tr> </tbody></table> 2130441.433542191.64375461.52117921.591179251.59212709141510212709174837500002000040000 <table border="0" cellpadding="0" cellspacing="0" class="finTable" style="width: 100%; font-size: 10pt; font-family: "Times New Roman", Times, serif; text-indent: 0px;"><tbody> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;"><em style="font: inherit;"><em style="font: inherit;">Three Months Ended June 30,</p> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;"><em style="font: inherit;"><em style="font: inherit;">Six Months Ended June 30,</p> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;"><em style="font: inherit;">2024</p> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;"><em style="font: inherit;">2023</p> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;"><em style="font: inherit;">2024</p> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;"><em style="font: inherit;">2023</p> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> <p style="margin: 0pt; font-size: 10pt; font-family: "Times New Roman", Times, serif;">General and administrative</p> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">285,372</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">323,796</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">579,406</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">643,132</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> <p style="margin: 0pt; font-size: 10pt; font-family: "Times New Roman", Times, serif;">Research and development</p> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">12,231</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">10,520</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">24,675</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">21,823</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> <p style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; margin: 0pt;">Total</p> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">297,603</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">334,316</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 3px; margin-left: 0pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 3px double rgb(0, 0, 0);">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; 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vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Three Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="6" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> Six Months Ended June 30, </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr class="finHeading" style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> <p

style="font-family: "Times New Roman", Times, serif; font-size: 10pt; font-variant: normal; text-align: center; margin: 0pt;">2024 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt;"> </td><td colspan="2" style="text-align: center; font-family: "Times New Roman", Times, serif; font-size: 10pt; margin-left: 0pt; border-bottom: 1px solid rgb(0, 0, 0);"> 2023 </td><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding-bottom: 1px;"> </td></tr> <tr style="background-color: rgb(204, 238, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> Share based compensation expense - stock option </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">243,538</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">278,373</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">433,807</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">$</td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0">554,914</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td></tr> <tr style="background-color: rgb(255, 255, 255); vertical-align: bottom"><td style="font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> Share based compensation expense - restricted stock units </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">54,065</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);"> </td><td style="width: 9%; text-align: right; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0px; margin: 0px; border-bottom: 1px solid rgb(0, 0, 0);">55,943</td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; font-size: 10pt; padding: 0; margin: 0"> </td><td style="width: 1%; font-family: "Times New Roman", Times, serif; 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285372323796579406643132122311052024675218232976033343166040816649552435382783734338075549145406555943170274110041297603334316604081664955 Note 7: Shareholders' Equity Issuances of Common Stock   For the six months ended June 30, 2024 , there were 666,578 shares of the Company's common stock issued with a weighted average issue price of $1.61 per share, including 223,463 shares from the conversion of the Convertible Notes, 61,793 shares from the vesting of restricted stock units, and 5,569 shares from the exercise of stock options. For the six months ended June 30, 2023, there were 247,961shares of the Company's common stock issued resulting from the vesting of restricted stock units with a weighted average issue price of $1.38 per share.   Treasury Stock   As of June 30, 2024, there were 12,253,502 shares of common stock held in treasury, at a cost of $18.9 million, representing the purchase price on the date the shares were surrendered to the Company. 6665781.612234636179355691.3812255302189000000 Note 8: Subsequent Events   For purpose of disclosure in the consolidated financial statements, the Company has evaluated subsequent events through August 13, 2024, the date the consolidated financial statements were available to be issued. Except for items mentioned in the notes, management is not aware of any material events that have occurred after the balance sheet date that would require adjustment to, or disclosure in the accompanying financial statements.   <table border="0" cellpadding="0" cellspacing="0" style="width: 100%; text-indent: 0px;"><tbody><tr style="vertical-align: top;"><td style="width: 63pt;"> Item 5. </td><td> Other Information </td></tr> </tbody></table>   (a) None.   (b) None.   (c) During the quarter ended June 30, 2024, the following individuals adopted Rule 10b5-1 trading arrangements, which are intended to satisfy the affirmative defense of Rule 10b5-1(c) under the Exchange Act: our President and Chief Executive Officer Mark Emalfarb (adopted on June 4, 2024); our director Jack Kaye (adopted on June 6, 2024); our Vice President of Research and Business Development Ronen Tchelet (adopted on June 7, 2024); and our Chief Financial Officer Ping Wang Rawson (adopted on June 12, 2024). Each trading arrangement includes the potential sale of up to a specified number of shares of our common stock owned by the applicable individual (for Mr. Emalfarb, 1 million; for Mr. Kaye, 292,367; for Mr. Tchelet, 250,000; and for Ms. Rawson, 282,485), and expires on a specified date (for Mr. Emalfarb, December 31, 2026; for Mr. Kaye, June 2, 2026; for Mr. Tchelet, June 10, 2025; and for Ms. Rawson, June 12, 2026), unless earlier terminated in accordance with the provisions of the arrangement.   Except as described above, for the quarter ended June 30, 2024, none of our directors or officers (as defined in Section 16 of the Exchange Act) adopted or terminated a "Rule 10b5-1 trading arrangement" or a "non-Rule 10b5-1 trading arrangement" (each as defined in Item 408(a) and (c), respectively, of Regulation S-K). 1000000282485 The Company considers the declines in market value of its investment portfolio to be temporary in nature. As of June 30, 2024 and December 31, 2023, the Company did not consider any of its investments to be other-than-temporarily impaired and no allowance for credit losses was recorded. Represents the following options expired: (a) 300,000 stock options with an exercise price of $1.87 per share granted to an executive, (b) 25,000 stock options with an exercise price of $1.76 per share granted to a member of the Board of Directors, (c) 7,500 stock options with an exercise price of $5.56 per share granted to a consultant, (d) 25,000 stock options with an exercise price of $4.14 per share granted to a consultant, and (e) 1,000 stock options with an exercise price of $1.55 per share granted to an employee. For the three months ended June 30, 2024 and 2023, the Company received discounts of $31,357 and $17,601 to purchase held-to-maturity investment securities, respectively. For the six months ended June 30, 2024 and 2023, the Company received discounts of $61,472 and $32,834 to purchase held-to-maturity investment securities, respectively. For the year ended December 31, 2023, the Company received discounts of $39,012 to purchase held-to-maturity investment securities. Represents the cancellation of RSUs granted to a former member of the Board of Directors. All our money market funds were invested in U.S. Government money market funds. Represents 212,709 RSUs granted to executives and key personnel, 174,837 RSUs granted to the Board of Directors, and 50,000 RSUs granted to a contractor. On March 13, 2024, the Company granted 212,709 RSUs with immediate vesting, to executives and key personnel in lieu of cash bonuses earned for the year ended 2023. On January 2, 2024, the Company granted 141,510 RSUs, vesting upon one year anniversary of the grant, to the Board of Directors. The fair value of the common stock is the

Company's closing stock price on the grant date as reported on the Nasdaq Stock Exchange. Represents the following options granted: Annual share-based compensation awards on January 2, 2024, with an exercise price of $1.59, including: (a) 387,500 stock options granted to executives and key personnel, vesting upon one year anniversary, or annually in equal installments over four years, (b) 352,500 stock options granted to members of the Board of Directors, vesting upon one year anniversary, (c) 17,600 stock options granted to employees, vesting annually in equal installments over four years, and (d)15,000 stock options granted to a consultant, vesting upon one year anniversary. One-time awards on April 11, 2024, with an exercise price of $1.84, including 20,000 stock options granted to an executive, vesting annually in equal installments over four years, and 20,000 stock options granted to a member of the Board of Directors, vesting upon one year anniversary. Represents the following options canceled: (a) 50,000 stock options granted to a former Board of Directors, (b) 13,125 stock options granted to the Company's former Chairman of the Board of Directors.

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